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     FILE 'HCAPLUS' ENTERED AT 11:57:47 ON 19 SEP 2008
L1         61710 S OLIGONUCLEOTIDE
L2         32248 S BENZOTRIAZOLE OR IMIDAZOLIUM OR BENZIMIDAZOLIUM OR SACCHARINE
L3         44123 S BENZOTRIAZOLE OR IMIDAZOLIUM OR BENZIMIDAZOLIUM OR SACCHARINE
L4        466534 S POLYSTYRENE OR (POLYETHYLENE GLYCOL) OR TENTAGEL OR POLYVINYL
L5            11 S L1 AND L3 AND L4
L6        122260 S SWELL OR SWELLING OR SWOLLEN
L7             1 S L1 AND L3 AND L6
L8            52 S L1 AND L6
L9            33 S L8 AND (PY<2003 OR AY<2003 OR PRY<2003)
L10        12054 S SACCHARIN
L11        61710 S OLIGONUCLEOTIDE
L12     2361461 S SYNTHE?
L13           2 S L10 AND L11 AND L12

     FILE 'REGISTRY' ENTERED AT 14:25:54 ON 19 SEP 2008
L14               STRUCTURE UPLOADED
L15           50 S L14
L16         1527 S L14 SSS FULL

     FILE 'HCAPLUS' ENTERED AT 14:27:22 ON 19 SEP 2008
L17         8510 S L16
L18            3 S L11 AND L17
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=> file hcaplus
COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                         ENTRY    SESSION
FULL ESTIMATED COST                                       0.21       0.21

FILE 'HCAPLUS' ENTERED AT 11:57:47 ON 19 SEP 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)
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FILE COVERS 1907 - 19 Sep 2008  VOL 149 ISS 13
FILE LAST UPDATED: 18 Sep 2008  (20080918/ED)

HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the second quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.

=> s oligonucleotide
L1       61710 OLIGONUCLEOTIDE

=> s benzotriazole or imidazolium or benzimidazolium or saccharine or
hydroxybenzotriazole
         17894 BENZOTRIAZOLE
          8751 IMIDAZOLIUM
          1022 BENZIMIDAZOLIUM
          1402 SACCHARINE
          3743 HYDROXYBENZOTRIAZOLE
L2       32248 BENZOTRIAZOLE OR IMIDAZOLIUM OR BENZIMIDAZOLIUM OR SACCHARINE
               OR HYDROXYBENZOTRIAZOLE

=> s benzotriazole or imidazolium or benzimidazolium or saccharine or
hydroxybenzotriazole or saccharin
         17894 BENZOTRIAZOLE
          8751 IMIDAZOLIUM
          1022 BENZIMIDAZOLIUM
          1402 SACCHARINE
          3743 HYDROXYBENZOTRIAZOLE
         12054 SACCHARIN
L3       44123 BENZOTRIAZOLE OR IMIDAZOLIUM OR BENZIMIDAZOLIUM OR SACCHARINE
               OR HYDROXYBENZOTRIAZOLE OR SACCHARIN

=> s polystyrene or (polyethylene glycol) or tentagel or polyvinyl or polyacrylamide
        163274 POLYSTYRENE
        390665 POLYETHYLENE
        399905 GLYCOL
        116921 POLYETHYLENE GLYCOL
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                (POLYETHYLENE(W)GLYCOL)
           550 TENTAGEL
        107828 POLYVINYL
         98895 POLYACRYLAMIDE
L4      466534 POLYSTYRENE OR (POLYETHYLENE GLYCOL) OR TENTAGEL OR POLYVINYL
               OR POLYACRYLAMIDE

=> s l1 and l3 and l4
L5          11 L1 AND L3 AND L4

=> d l5 1-11 ti abs bib

L5   ANSWER 1 OF 11  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI   O-Selective Condensation Using P-N Bond Cleavage in RNA Synthesis without
     Base Protection
AB   In RNA synthesis without base protection, a new method for O-selective
     condensation with more than 99% selectivity was developed by
     6-nitro-HOBt-mediated cleavage of undesired P(III)-N bonds on nucleobase
     moieties.  Moreover, it is the first time for the synthesis of oligoRNAs
     without base protection to be successful.
AN   2008:685938  HCAPLUS <<LOGINID::20080919>>
DN   149:176577
TI   O-Selective Condensation Using P-N Bond Cleavage in RNA Synthesis without
     Base Protection
AU   Ohkubo, Akihiro; Kuwayama, Yasukazu; Kudo, Tomomi; Tsunoda, Hirosuke;
     Seio, Kohji; Sekine, Mitsuo
CS   Department of Life Science, Tokyo Institute of Technology, Nagatsuta,
     Midoriku, Yokohama, 226-8501, Japan
SO   Organic Letters (2008), 10(13), 2793-2796
     CODEN: ORLEF7; ISSN: 1523-7060
PB   American Chemical Society
DT   Journal
LA   English
RE.CNT  20    THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5   ANSWER 2 OF 11  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI   Preparation method of oligonucleotide-immobilized solid matrix
GI
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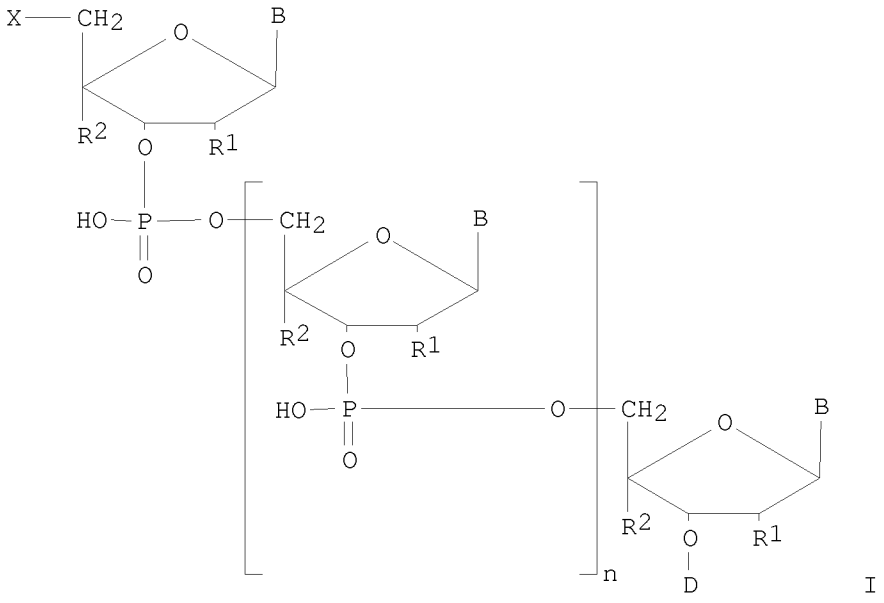


AB A novel type solid matrix for immobilization of oligonucleotide has been developed. Oligodeoxyribonucleotides to be immobilized I (R1,R2 = H, alkoxy; B = natural nucleotide base or analog; X = elimination group (halo, tosyl, mesyl, trifluoromethanesulfonyl, phosphate); n = 2-50; D = solid matrix) have an elimination group at the 5'-termini. Immobilization of oligodeoxyribonucleotides, of which 3'-end have nucleophilic functional group is achieved by solid phase synthesis based on phosphoroamidide method using 1-hydroxybenzotriazol as a reaction promoting agent. The solid matrix is made of slide glass plate, porous glass, polystyrene beads, plastics, gold particles or plates, silver particles or plates. The oligodeoxyribonucleotides are labeled with indicators (including radioactive indicators). The oligodeoxyribonucleotides are typically hybridization probes to detect SNP and base mismatch mutation.

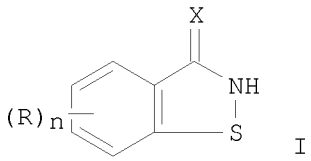
AN 2007:1060863 HCAPLUS <<LOGINID::20080919>>
DN 147:358286
TI Preparation method of oligonucleotide-immobilized solid matrix
IN Sekine, Mitsuo; Seio, Kohji; Ohkubo, Akihiro; Tanaka, Kunihiko
PA Tokyo Institute of Technology, Japan
SO PCT Int. Appl., 38pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2007105623	A1	20070920	WO 2007-JP54645	20070309

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF,

BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW,
GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
BY, KG, KZ, MD, RU, TJ, TM
PRAI JP 2006-66396 A 20060310
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Process for the solid phase preparation of oligodeoxyribonucleotides using heterocycle activators
GI



I

AB A process for the synthesis of an oligonucleotide is provided in which an oligonucleotide is assembled on a swellable solid support using the phosphoramidite approach in the presence of an activator I, wherein n is 0-4; R for each occurrence is a substituent, or two adjacent R groups taken together with the carbon atoms to which they are attached form a six membered saturated or unsatd. ring; and X is O or S; the activator is not tetrazole or a substituted tetrazole. Preferred activators are pyridinium, imidazolinium and benzimidazolinium salts; benzotriazole and derivs. thereof; and saccharin or a saccharin derivative Preferred swellable solid supports comprise functionalized polystyrene, partially hydrolyzed polyvinyl-acetate or poly(acrylamide).
AN 2004:534221 HCAPLUS <<LOGINID::20080919>>
DN 141:54582
TI Process for the solid phase preparation of oligodeoxyribonucleotides using heterocycle activators
IN Mccormac, Paul
PA Avecia Limited, UK
SO PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004055036	A1	20040701	WO 2003-GB5464	20031216
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
WO 2003091267	A1	20031106	WO 2003-GB1795	20030425
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,				

CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY,
KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

	CA 2510477	A1	20040701	CA 2003-2510477	20031216
	AU 2003292423	A1	20040709	AU 2003-292423	20031216
	EP 1575975	A1	20050921	EP 2003-768001	20031216
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1747963	A	20060315	CN 2003-80109693	20031216
	CN 100384864	C	20080430		
	JP 2006512411	T	20060413	JP 2005-502460	20031216
	US 20060149052	A1	20060706	US 2006-539625	20060103
PRAI	GB 2002-29443	A	20021218		
	WO 2003-GB1795	A	20030425		
	GB 2002-9539	A	20020426		
	WO 2003-GB5464	W	20031216		

OS CASREACT 141:54582; MARPAT 141:54582
RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Polyvinyl ethers for chromatographic applications, immobilization of enzymes, reagents or catalysts
AB The present invention relates to polyvinyl ethers and to their use as supports for synthetic methods (organic synthesis, peptide synthesis, oligonucleotide synthesis, oligosaccharide synthesis or any other synthetic procedure) and to their use for chromatog. applications (such as affinity chromatog.), immobilization of enzymes, reagents or catalysts. Thus, 1,4-butanediol vinyl ether gel was synthesized by hydrolyzing 4-acetoxybutyl vinyl ether-1,4-butanediol divinyl ether copolymer in an aqueous KOH solution
AN 2003:991557 HCAPLUS <<LOGINID::20080919>>
DN 140:28166
TI Polyvinyl ethers for chromatographic applications, immobilization of enzymes, reagents or catalysts
IN Steinke, Joachim Hans Georg; Pears, David Alan; Cavalli-Petraglia, Gabriel
PA Imperial College Innovations Limited, UK
SO PCT Int. Appl., 103 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003104294	A1	20031218	WO 2003-GB2430	20030603
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

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     AU 2003232936         A1    20031222    AU 2003-232936         20030603
     EP 1509555            A1    20050302    EP 2003-727735         20030603
     EP 1509555            B1    20071017
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     AT 376007             T     20071115    AT 2003-727735         20030603
     US 20050215745        A1    20050929    US 2004-4194           20041203
PRAI GB 2002-12897         A     20020605
     GB 2002-13125         A     20020607
     GB 2002-13995         A     20020618
     WO 2003-GB2430        W     20030603
RE.CNT  4     THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5   ANSWER 5 OF 11  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI   Methods and compositions for enhancing sensitivity in the analysis of
     biological-based assays using cleavable tags
AB   Methods are provided for detecting the binding of a first member to a
     second member of a ligand pair, comprising the steps of (a) combining a
     set of first tagged members with a biol. sample which may contain one or
     more second members, under conditions, and for a time sufficient to permit
     binding of a first member to a second member, wherein said tag is
     correlative with a particular first member and detectable by
     non-fluorescent spectrometry, or potentiometry, (b) separating bound first and
     second members from unbound members, (c) cleaving the tag from the tagged
     first member, and (d) detecting the tag by non-fluorescent spectrometry,
     or potentiometry, and therefrom detecting the binding of the first member
     to the second member.  Texas Red-, Lissamine-, or fluorescein-tagged
     oligonucleotide probes were prepared and used to assay gene
     expression.
AN   2000:124060  HCAPLUS <<LOGINID::20080919>>
DN   132:177733
TI   Methods and compositions for enhancing sensitivity in the analysis of
     biological-based assays using cleavable tags
IN   Van Ness, Jeffrey ; Tabone, John C.; Howbert, J. Jeffry; Mulligan, John T.
PA   Rapigene, Inc., USA
SO   U.S., 79 pp., Cont.-in-part of U.S. Ser. No. 787,521, abandoned.
     CODEN: USXXAM
DT   Patent
LA   English
FAN.CNT 7
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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PI   US 6027890           A     20000222    US 1997-898501         19970722
     EP 962464            A2    19991208    EP 1999-110813         19970123
     EP 962464            A3    20040211
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     CA 2297158           A1    19990204    CA 1998-2297158        19980722
     WO 9905319           A2    19990204    WO 1998-US15008        19980722
     WO 9905319           A3    19990514
         W:  AL, AM, AT, AU, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK,
             EE, ES, FI, GB, GE, GH, GM, HU, ID, IL, IS, JP, KE, KG, KP, KR,
             KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG,
             US, UZ, VN, YU, ZW, AZ
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     AU 9885765           A     19990216    AU 1998-85765          19980722
     AU 738237            B2    20010913
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	EP 990047	A2	20000405	EP 1998-936928	19980722
	EP 990047	B1	20030514		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	HU 2000003485	A2	20001228	HU 2000-3485	19980722
	JP 2001511359	T	20010814	JP 2000-504286	19980722
	NZ 501919	A	20011130	NZ 1998-501919	19980722
	AT 240408	T	20030515	AT 1998-936928	19980722
	PT 990047	T	20031031	PT 1998-936928	19980722
	ES 2200355	T3	20040301	ES 1998-936928	19980722
	US 20030077595	A1	20030424	US 2001-467	20011024
	US 6815212	B2	20041109		
PRAI	US 1996-10436P	P	19960123		
	US 1996-15402P	P	19960321		
	US 1997-787521	B2	19970122		
	EP 1997-903074	A3	19970123		
	US 1997-898180	A	19970722		
	US 1997-898501	A	19970722		
	US 1997-898564	A	19970722		
	WO 1998-US15008	W	19980722		
	US 1999-457048	B1	19991207		

OS MARPAT 132:177733
RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Chemical modification of oligonucleotides by porphyrins and their purification
AB A kind of porphyrin modified antisense oligodeoxynucleotides was synthesized for the methodol. studies of the modification of oligonucleotides. Its preliminary application in the c-myc gene expression was also presented. The porphyrin moiety was modified on the com. oligonucleotides through the active 1-hydroxybenzotriazole esters of the porphyrins. The resulting oligonucleotide -porphyrin conjugates were purified and identified by the polyacrylamide gel electrophoresis, the IR and UV spectra. This strategy is more easily handled and has broad application fields compared with other methods.
AN 1998:582324 HCAPLUS <<LOGINID::20080919>>
DN 130:13980
TI Chemical modification of oligonucleotides by porphyrins and their purification
AU Wu, Meng; Xia, Shuzhen; Yang, Yuzhen; Han, Ling
CS Department of Chemistry, School of Basic Medical Sciences, Tongji Medical University, Wuhan, 430030, Peop. Rep. China
SO Tongji Yike Daxue Xuebao (1998), 27(3), 177-180
CODEN: TYDXEP; ISSN: 0258-2090
PB Tongji Yike Daxue
DT Journal
LA Chinese

L5 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Methods and compositions for detecting binding of ligand pair using non-fluorescent label
AB Methods are provided for detecting the binding of a first member to a second member of a ligand pair, comprising the steps of (1) combining a set of first tagged members with a biol. sample which may contain ≥1 s members, under conditions, and for a time sufficient to permit binding of a first member to a second member, wherein said tag is correlative with a particular first member and detectable by non-fluorescent spectrometry or potentiometry; (2) separating bound first and

second members from unbound members; (3) cleaving the tag from the tagged first member; and (4) detecting the tag by non-fluorescent spectrometry or potentiometry, and therefrom detecting the binding of the first member to the second member. Novel compns. are provided that may be used in a wide variety of nucleic acid-based or protein (e.g., antibody)-based assays.

AN 1997:517585 HCAPLUS <<LOGINID::20080919>>

DN 127:173496

OREF 127:33529a,33532a

TI Methods and compositions for detecting binding of ligand pair using non-fluorescent label

IN Van Ness, Jeffrey; Tabone, John C.; Howbert, J. Jeffry; Mulligan, John T.

PA Darwin Molecular Corp., USA; Van Ness, Jeffrey; Tabone, John C.; Howbert, J. Jeffry; Mulligan, John T.

SO PCT Int. Appl., 146 pp.
CODEN: PIXXD2

DT Patent

LA English

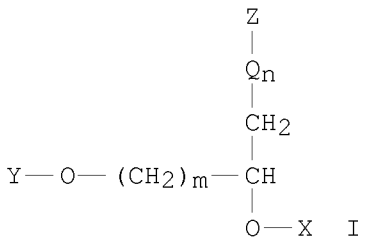
FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9727327	A2	19970731	WO 1997-US1070	19970123
	WO 9727327	A3	19971120		
	W: AL, AM, AT, AU, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AZ				
	RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	CA 2243989	A1	19970731	CA 1997-2243989	19970123
	AU 9717079	A	19970820	AU 1997-17079	19970123
	AU 717330	B2	20000323		
	EP 850320	A2	19980701	EP 1997-903074	19970123
	EP 850320	B1	19991208		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	CN 1212019	A	19990324	CN 1997-192554	19970123
	HU 9900459	A2	19990628	HU 1999-459	19970123
	HU 9900459	A3	19991129		
	EP 962464	A2	19991208	EP 1999-110813	19970123
	EP 962464	A3	20040211		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	AT 187501	T	19991215	AT 1997-903074	19970123
	BR 9707060	A	19991228	BR 1997-7060	19970123
	ES 2143848	T3	20000516	ES 1997-903074	19970123
	JP 2000507091	T	20000613	JP 1997-526988	19970123
	CN 1515541	A	20040728	CN 2004-10002786	19970123
	MX 9805951	A	20000331	MX 1998-5951	19980723
	GR 3032843	T3	20000731	GR 2000-400535	20000303
PRAI	US 1996-10436P	P	19960123		
	US 1996-15402P	P	19960321		
	EP 1997-903074	A3	19970123		
	WO 1997-US1070	W	19970123		

L5 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Synthesis of acyclic oligonucleotides as antiviral and antiinflammatory agents and inhibitors of phospholipase A2

GI



AB Title ethylene glycol acyclic oligonucleotides I (Q = alkyl, alkenyl, alkynyl, alkylamino, ester amide, thio ester, imine, sulfonyl; X = H, PO3H2, polymer support; Y = H, protected hydroxyl; Z = nucleobase, polyether, polyethylene glycol, N-containing heterocycle; n = 0, Z = nucleobase, alkylamine; m = 1-6) were prepared as antiviral and antiinflammatory agents and inhibitors of phospholipase A2.

AN 1995:982328 HCAPLUS <<LOGINID::20080919>>

DN 124:30276

OREF 124:5823a,5826a

TI Synthesis of acyclic oligonucleotides as antiviral and antiinflammatory agents and inhibitors of phospholipase A2

IN Cook, Phillip Dan; Acevedo, Oscar L.; Davis, Peter W.; Ecker, David J.; Hebert, Normand

PA Isis Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 126 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 7

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9518820	A1	19950713	WO 1995-US449	19950111
	W: CA, JP, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6448373	B1	20020910	US 1994-179970	19940111
	CA 2180867	A1	19950713	CA 1995-2180867	19950111
	CA 2180867	C	20041214		
	EP 739351	A1	19961030	EP 1995-908491	19950111
	EP 739351	B1	20020410		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
	JP 09508105	T	19970819	JP 1995-518700	19950111
	JP 3072127	B2	20000731		
	AT 215960	T	20020415	AT 1995-908491	19950111
	US 5886177	A	19990323	US 1996-669506	19960808
	US 20030065146	A1	20030403	US 2002-162365	20020603
PRAI	US 1994-179970	A	19940111		
	WO 1995-US449	W	19950111		

OS MARPAT 124:30276

L5 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Cholesteryl-modified triple-helix forming oligonucleotides and their uses

AB Cholesterol-modified triple helix-forming oligonucleotides that have improved triple helix-forming properties are described for use in the treatment of disease. The use of a lipophilic moiety improves the passage of the oligonucleotide into cells. 2-Cyanoethyl solketal was synthesized from solketal and acrylonitrile by reduction with NaH in THF and then reduced to 3-aminopropyl solketal with NaBH4 in the presence of Co(II)Cl2. The aminopropyl solketal was then conjugated with cholesteryl chloroformate in pyridine to give N-((cholesteryloxy)carbonyl)-3-

aminopropyl solketal that was converted to 1-O(4,4'-dimethoxytrityl)-3-O-(N-(cholesteryloxy) carbonyl-3-aminopropyl) glycerol by reaction with 4,4'-dimethoxytrityl chloride and this was immobilized on controlled-pore glass. Coupling efficiency on the cholesteryl glass was very low; coupling of the 1-O(4,4'-dimethoxytrityl)-3-O-(N-(cholesteryloxy) carbonyl-3-aminopropyl) glycerol to TentaGel-NH2 with with O-benzotriazole-1-yl-N,N,N',N'-tetramethyluronium tetrafluoroborate, 1-hydroxybenzotriazole hydrate, and N-Et morpholine gave a greatly increased efficiency of coupling. In uptake expts. with animal cell cultures it was found that intracellular concns. of of cholesteryl oligonucleotides exceeded those of the medium. Whole cell uptake of cholesteryl oligonucleotide was 2-22-fold higher than for a control oligonucleotide and nuclear uptake was 3-26-fold higher (depending upon cell type tested.). The cholesteryl oligonucleotides were also more effective at inhibiting expression of the target gene.

AN 1994:291459 HCAPLUS <<LOGINID::20080919>>
DN 120:291459
OREF 120:51195a,51198a
TI Cholesteryl-modified triple-helix forming oligonucleotides and their uses
IN Jayaraman, Krishna; Vu, Huynh; Zendegui, Joseph; Hogan, Michael E.
PA Triplex Pharmaceutical Corp., USA; Baylor College of Medicine
SO PCT Int. Appl., 85 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9404550	A1	19940303	WO 1993-US7743	19930817
W: CA, JP				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
PRAI US 1992-934065	A	19920821		
US 1993-53040	A	19930423		

L5 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Large scale HELP synthesis of oligodeoxynucleotides by the hydroxybenzotriazole phosphotriester approach
AB The hydroxybenzotriazole phosphotriester approach was successfully applied to the polyethylene glycol -supported synthesis [high efficiency liquid phase (HELP)] of oligodeoxynucleotides. Main advantages over the mesitylenesulfonyl-3-nitro-1,2,4-triazole based HELP procedure are the elimination of side-reactions at the guanosine level and the use of the less expensive protected nucleosides as starting materials.
AN 1991:536613 HCAPLUS <<LOGINID::20080919>>
DN 115:136613
OREF 115:23447a,23450a
TI Large scale HELP synthesis of oligodeoxynucleotides by the hydroxybenzotriazole phosphotriester approach
AU Colonna, Francesco P.; Scremin, Carlo L.; Bonora, Gian M.
CS I. Co. CEA, CNR, Ozzano Emilia, 40064, Italy
SO Tetrahedron Letters (1991), 32(27), 3251-4
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA English

L5 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Preparation of modified polymer membranes as supports for the solid phase synthesis of oligonucleotides and peptides
AB Modified polymer membranes represented by the formula P-X-Y-N-Z-S [P = flat, permeable polymeric membrane of porous structure, e.g. polyacrylate

or polymethacrylate having a free OH or ester function, cross-linked polymer (polydialkylsilandiols, polyvinyl alcs., polyoxyethylenes, polyoxymethylenes), polystyrenes or polysulfones containing aromatic residues, polyesters, and polyamides; X = functional group on the membrane; Y-N-Z = linker; N = spacer mol., specifically (CH2)n where n = 1-20, NH(CH2)mNHCO(CH2)mCO where m = 1-6, more specifically oligoglycine; Y, Z = the same or different functional group, specifically selected from NH, S, O, NC(S), OC(S), NC(O), OS(O)2, S(O)2, CO, OC(O), NHCO, P(O)O-, OP(O)O-, etc.], useful for the solid phase synthesis of oligonucleotides and peptides, were prepared Thus, an immobilon affinity membrane (IAM) (Millipore Corp.) H2N CH2CH2NH-IAM (3.20g, 0.349 mmol of NH2 group) was reacted sequentially with Fmoc-Nle-Pfp (Fmoc = fluorenylmethyloxycarbonyl, Pfp = pentafluorophenyl) in DMF in the presence of 1-hydroxybenzotriazole, Ac2O in pyridine and piperidine on CH2Cl2 to give H-Nle-NHCH2CH2NH-IAM. This was treated with 20% piperidine in DMF and then acylated with H-HOCH2C6H4OCH2CO2Pfp to give 4-HOCH2C6H4OCH2CO-Nle-NHCH2CH2NH-IAM. Using this as a support, a prothrombin precursor, i.e. Fmoc-Ala-Asn-Lys(BOC)-Gly-Phe-Leu-Glu(OBu)-Glu(OBu)-Val-OCH2C6H4OCH2CO-Nle-NHCH2CH2NH-IAM was prepared by the solid phase method. Removal of the FMOC group followed by cleavage of the peptide from the support with CF3CO2H gave H-Ala-Asn-Lys-Gly-Lys-Gly-Phe-Phe-Leu-Glu-Glu-Val-OH. An oligopeptide dCT-C-C-C-A-G-T-C-A-C-G-A-C-G-T-C) was also synthesized via amidation of the p-nitrophenylester of N-4-benzoyl-3'-O-succinyl-5'-O-dimethoxytrityldeoxycytidine with H2N(CH2)6NH-IAM.

AN 1989:458357 HCAPLUS <<LOGINID::20080919>>
DN 111:58357
OREF 111:9926a
TI Preparation of modified polymer membranes as supports for the solid phase synthesis of oligonucleotides and peptides
IN Koester, Hubert; Coull, James M.
PA Millipore Corp., USA
SO Eur. Pat. Appl., 21 pp.
CODEN: EPXXDW
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 305929	A2	19890308	EP 1988-113978	19880826
	EP 305929	A3	19910327		
	EP 305929	B1	19960410		
	R: DE, FR, GB, IT, NL, SE				
	US 4923901	A	19900508	US 1987-93011	19870904
	JP 01151596	A	19890614	JP 1988-220577	19880905
PRAI	US 1987-93011	A	19870904		

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	40.08	40.29

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-8.80	-8.80

SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 11:59:28 ON 19 SEP 2008

Connecting via Winsock to STN

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Welcome to STN International!  Enter x:X

LOGINID:SSPTAEXO1623

PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'HCAPLUS' AT 13:30:51 ON 19 SEP 2008
FILE 'HCAPLUS' ENTERED AT 13:30:51 ON 19 SEP 2008
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
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FULL ESTIMATED COST                                      40.08      40.29

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
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         11008 SWELL
        101481 SWELLING
         20146 SWOLLEN
L6      122260 SWELL OR SWELLING OR SWOLLEN

=> s l1 and l3 and l6
L7            1 L1 AND L3 AND L6

=> d l7 ti abs bib

L7   ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI   Polyvinyl ethers for chromatographic applications, immobilization of
     enzymes, reagents or catalysts
AB   The present invention relates to polyvinyl ethers and to their use as
     supports for synthetic methods (organic synthesis, peptide synthesis,
     oligonucleotide synthesis, oligosaccharide synthesis or any other
     synthetic procedure) and to their use for chromatog. applications (such as
     affinity chromatog.), immobilization of enzymes, reagents or catalysts.
     Thus, 1,4-butanediol vinyl ether gel was synthesized by hydrolyzing
     4-acetoxybutyl vinyl ether-1,4-butanediol divinyl ether copolymer in an
     aqueous KOH solution
AN   2003:991557  HCAPLUS <<LOGINID::20080919>>
DN   140:28166
TI   Polyvinyl ethers for chromatographic applications, immobilization of
     enzymes, reagents or catalysts
IN   Steinke, Joachim Hans Georg; Pears, David Alan; Cavalli-Petraglia, Gabriel
PA   Imperial College Innovations Limited, UK
SO   PCT Int. Appl., 103 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
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PI   WO 2003104294        A1    20031218    WO 2003-GB2430         20030603
         W:  AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
             TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
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             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     AU 2003232936        A1    20031222    AU 2003-232936         20030603
     EP 1509555           A1    20050302    EP 2003-727735         20030603
     EP 1509555           B1    20071017
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     AT 376007            T     20071115    AT 2003-727735         20030603
     US 20050215745       A1    20050929    US 2004-4194           20041203
PRAI GB 2002-12897        A     20020605
     GB 2002-13125        A     20020607
     GB 2002-13995        A     20020618
     WO 2003-GB2430       W     20030603
RE.CNT  4     THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> s l1 and l6
L8          52 L1 AND L6

=> s l8 and (PY<2003 or AY<2003 or PRY<2003)
      22958921 PY<2003
       4497317 AY<2003
       3965740 PRY<2003
L9          33 L8 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> d l9 1-33 ti abs bib

L9   ANSWER 1 OF 33  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI   Cereal genotyping system using PCR primer pairs to amplify a limited set
     of specific polymorphisms
AB   A series of unlinked, dominant PCR markers are provided to genotype
     cultivars of bread wheat Triticum aestivum and durum wheat T. turgicum.
     Although there are may potential DNA polymorphisms which may be used to
     characterize a given genotype, a limited number of DNA polymorphisms are
     discovered that accurately assign a cereal sample to a known genotype.
     The dominant markers used comprise informative markers for quality and
     agronomic traits, including flour swelling properties, dough
     strength, grain hardness, and water use efficiency, in addition to anonymous
     markers based on converted AFLPs and dominant microsatellites.  Seventeen
     such markers produce characteristic 'genotype codes' for a test panel of
     50 wheat varieties grown com. in New South Wales, Australia.  The use of
     dominant markers facilitates the anal. of PCR products using solid-phase,
     microtiter plate methodologies.  A first method uses solid phase
     amplification to generate hapten-labeled PCR product directly attached to
     the microtiter plate for subsequent colorimetric assay by ELISA.  In a
     second method, hapten-labeled PCR product is generated in the liquid phase,
     followed by specific capture of the product using an internal solid phase
     capture oligonucleotide and subsequent ELISA detection.  These
     markers and formats are suitable for high throughput anal. of DNA markers
     for the purposes of marker-assisted breeding and variety identification.
AN   2006:176895  HCAPLUS <<LOGINID::20080919>>
DN   144:306407
TI   Cereal genotyping system using PCR primer pairs to amplify a limited set
     of specific polymorphisms
IN   Gale, Kevin Richard; Ma, Wujun; Zhang, Weujun
PA   Commonwealth Scientific and Industrial Research Organisation, Australia;
     Awb Limited; Grains Research and Development Corporation
SO   Granted Innovation Pat. (Aust.), 50 pp.
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CODEN: AUXXBL
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI AU 2002100010	A4	20020131	AU 2002-100010	20020107 <--
PRAI AU 2002-100010		20020107 <--		

L9 ANSWER 2 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Single-stranded end-capped oligonucleotide mediated targeted gene repair in target population of cells
AB The present invention relates to the field of transfer of small mols. of exogenous nucleic acid into living cells, and to improved methods for accomplishing same using the technique of single-stranded end-capped oligonucleotide gene repair. The end caps of the small single stranded oligonucleotides include, but are not limited to, phosphorothioate linkages between nucleotides, a backbone of methylphosphonate, phosphoramidate, morpholino peptide linkages, or nucleotides containing different 2'-halo, 2'-alkyl, or 2'-alkoxylalklyl sugars. In some embodiments, the inventive method may be further described as providing incorporation of said materials into cells that can be made to exist in an adherent state in vitro. The invention also relates to the field of microinjecting said materials into living cells with improved cell viability for the injected cells. As well, the invention describes a method for improved genetic modification of endogenous sequences using co-delivery of accessory proteins and oligonucleotides to facilitate modification. The invention further relates to the field of gene therapy, using the technique of single-stranded end-capped oligonucleotide gene repair to correct genetic defects, as well as introducing specific mutations into genomic DNA for use in functional genomics. In some embodiments the invention may be used to introduce specific genetic mutations into selected genes of living cells for the purpose of generating transgenic mice, isogenic cell lines, primary cell types carrying a specific mutation, genetically modified plant cells, validation of gene function, and including, but not limited to, disease gene discovery.
AN 2004:100795 HCAPLUS <<LOGINID::20080919>>
DN 140:158663
TI Single-stranded end-capped oligonucleotide mediated targeted gene repair in target population of cells
IN Davis, Brian Ronald; Brown, David Bruce; Carsrud, N. D. Victor
PA USA
SO U.S. Pat. Appl. Publ., 21 pp., Cont.-in-part of U.S. Ser. No. 336,655, abandoned.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI US 20040023903	A1	20040205	US 2001-767775	20010814 <--
CA 2275474	A1	19980702	CA 1997-2275474	19971219 <--
WO 9828406	A1	19980702	WO 1997-US23781	19971219 <--

W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

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     AU 9856182           A     19980717    AU 1998-56182          19971219 <--
     EP 948594            A1    19991013    EP 1997-952611         19971219 <--
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     JP 2001507935        T     20010619    JP 1998-529047         19971219 <--
PRAI AU 1998-56182        A     19971219  <--
     CA 1997-2275474      A     19971219  <--
     EP 1997-952611       A     19971219  <--
     JP 1998-529047       A     19971219  <--
     WO 1997-US23781      A2    19971219  <--
     US 1999-336655       B2    19990618  <--
     US 1996-33820P       P     19961220  <--

L9   ANSWER 3 OF 33  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI   Polyvinyl ethers for chromatographic applications, immobilization of
     enzymes, reagents or catalysts
AB   The present invention relates to polyvinyl ethers and to their use as
     supports for synthetic methods (organic synthesis, peptide synthesis,
     oligonucleotide synthesis, oligosaccharide synthesis or any other
     synthetic procedure) and to their use for chromatog. applications (such as
     affinity chromatog.), immobilization of enzymes, reagents or catalysts.
     Thus, 1,4-butanediol vinyl ether gel was synthesized by hydrolyzing
     4-acetoxybutyl vinyl ether-1,4-butanediol divinyl ether copolymer in an
     aqueous KOH solution
AN   2003:991557  HCAPLUS <<LOGINID::20080919>>
DN   140:28166
TI   Polyvinyl ethers for chromatographic applications, immobilization of
     enzymes, reagents or catalysts
IN   Steinke, Joachim Hans Georg; Pears, David Alan; Cavalli-Petraglia, Gabriel
PA   Imperial College Innovations Limited, UK
SO   PCT Int. Appl., 103 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.           KIND   DATE        APPLICATION NO.        DATE
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PI   WO 2003104294         A1    20031218    WO 2003-GB2430         20030603 <--
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             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
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             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
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     AU 2003232936         A1    20031222    AU 2003-232936         20030603 <--
     EP 1509555            A1    20050302    EP 2003-727735         20030603 <--
     EP 1509555            B1    20071017
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             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     AT 376007             T     20071115    AT 2003-727735         20030603 <--
     US 20050215745        A1    20050929    US 2004-4194           20041203 <--
PRAI GB 2002-12897         A     20020605  <--
     GB 2002-13125         A     20020607  <--
     GB 2002-13995         A     20020618  <--
     WO 2003-GB2430        W     20030603
RE.CNT  4     THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
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L9 ANSWER 4 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Electroprocessing of materials useful in drug delivery and cell encapsulation
AB The invention is directed to compns. comprising an electroprocessed material and a substance, their formation and use. The electroprocessed material comprises fibers and can, for example, be one or more natural materials, one or more synthetic materials, or a combination thereof. The substance can be one or more therapeutic or cosmetic substances or other compds., mols., cells, or vesicles. The compns. can be used in substance delivery, including drug delivery within an organism by, for example, releasing substances or containing cells that release substances. The compns. can be used for other purposes, such as prostheses or similar implants. For example, vascular endothelial growth factor (VEGF) was dissolved in a solution of matrix material comprised of 80% type I collagen, 10% poly(glycolic acid) (PGA), and 10% poly(lactic acid) (PLA). These materials were dissolved in HFIP at a final concentration of 0.08 g/mL. VEGF was added to 1 mL of the solution to provide a VEGF concentration of 50 ng/mL of the collagen/PGA/PLA electrospinning solution The material was electrospun to form a construct and implanted into a rat muscle. VEGF increased the d. of functional capillaries that were present throughout the construct, as evidenced by the presence of capillaries containing red blood cells.
AN 2003:836769 HCAPLUS <<LOGINID::20080919>>
DN 139:341827
TI Electroprocessing of materials useful in drug delivery and cell encapsulation
IN Wnek, Gary E.; Simpson, David G.; Bowlin, Gary L.; Yao, Li; Kenawy, El-refaie; Layman, John M.; Sanders, Elliot H.; Fenn, John
PA Virginia Commonwealth University Intellectual Property Foundation, USA
SO PCT Int. Appl., 112 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 13

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003086290	A2	20031023	WO 2003-US10806	20030407 <--
	WO 2003086290	A3	20040122		
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	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 20030215624	A1	20031120	US 2003-407322	20030404 <--
	AU 2003223513	A1	20031027	AU 2003-223513	20030407 <--
	AU 2007219278	A1	20071018	AU 2007-219278	20070924 <--
PRAI	US 2002-370572P	P	20020405 <--		
	US 2002-400506P	P	20020802 <--		
	US 2002-402218P	P	20020808 <--		
	AU 2001-288692	A3	20010904 <--		
	AU 2001-88692	T0	20010904 <--		
	WO 2003-US10806	W	20030407		

L9 ANSWER 5 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Methods of preparing multicolor quantum dot tagged beads and their conjugates

AB The present invention provides a method of preparing a multicolor quantum dot-tagged bead, a multicolor quantum dot-tagged bead, its conjugate with oligo probes, and a composition comprising such a bead or conjugate. Addnl., the present invention provides a method of making a conjugate and methods of using a conjugate for multiplexed anal. of target mols. , e.g. biomols.

AN 2003:23111 HCAPLUS <<LOGINID::20080919>>

DN 138:86057

TI Methods of preparing multicolor quantum dot tagged beads and their conjugates

IN Nie, Shuming; Gao, Xiaohu; Han, Mingyong

PA Advanced Research and Technology Institute, Inc., USA

SO PCT Int. Appl., 49 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2003003015	A2	20030109	WO 2002-US20568	20020628 <--
	WO 2003003015	A3	20031009		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	CA 2450725	A1	20030109	CA 2002-2450725	20020628 <--
	AU 2002322348	A1	20030303	AU 2002-322348	20020628 <--
	US 20030148544	A1	20030807	US 2002-185226	20020628 <--
	EP 1410031	A2	20040421	EP 2002-756334	20020628 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2005508493	T	20050331	JP 2003-509147	20020628 <--
	US 20070161043	A1	20070712	US 2006-566601	20061204 <--
PRAI	US 2001-301573P	P	20010628	<--	
	US 2002-185226	B1	20020628	<--	
	WO 2002-US20568	W	20020628	<--	

L9 ANSWER 6 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Polymeric Nanogels Produced via Inverse Microemulsion Polymerization as Potential Gene and Antisense Delivery Agents

AB Polymeric nanogel vectors were developed for cellular gene and antisense delivery. Inverse microemulsion polymerization was utilized to synthesize biocompatible nanogels with controlled size, morphol., and composition The chemical composition, size, polydispersity, stability, and swelling behavior of the nanogels were investigated by NMR, light scattering, transmission electron microscopy, and atomic force microscopy. The cell viability, uptake, and phys. stability of nanogel-DNA complexes were evaluated under physiol. conditions. Monodisperse nonionic and cationic nanogels were produced with controllable sizes ranging from 40 to 200 nm in diameter The nanogels demonstrated extended stability in aqueous media and exhibited low toxicity in cell culture. Cationic nanogels formed monodisperse complexes with oligonucleotides and showed enhanced oligonucleotide uptake in cell culture. The nanogels synthesized in this study demonstrate potential utility as carriers of

oligonucleotides and DNA for antisense and gene delivery.
AN 2002:902415 HCAPLUS <<LOGINID::20080919>>
DN 138:112213
TI Polymeric Nanogels Produced via Inverse Microemulsion Polymerization as Potential Gene and Antisense Delivery Agents
AU McAllister, Karen; Sazani, Peter; Adam, Mirielle; Cho, Moo J.; Rubinstein, Michael; Samulski, Richard Jude; DeSimone, Joseph M.
CS Department of Chemistry, School of Pharmacy, University of North Carolina at Chapel Hill, Chapel Hill, NC, 27599, USA
SO Journal of the American Chemical Society (2002), 124(51), 15198-15207
CODEN: JACSAT; ISSN: 0002-7863
PB American Chemical Society
DT Journal
LA English
RE.CNT 77 THERE ARE 77 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI ClC-3 Is a Fundamental Molecular Component of Volume-sensitive Outwardly Rectifying Cl- Channels and Volume Regulation in HeLa Cells and Xenopus laevis Oocytes
AB Volume-sensitive osmolyte and anion channels (VSOACs) are activated upon cell swelling in most vertebrate cells. Native VSOACs are believed to be a major pathway for regulatory volume decrease (RVD) through efflux of chloride and organic osmolytes. ClC-3 has been proposed to encode native VSOACs in Xenopus laevis oocytes and in some mammalian cells, including cardiac and vascular smooth muscle cells. The relationship between the ClC-3 chloride channel, the native volume-sensitive osmolyte and anion channel (VSOAC) currents, and cell volume regulation in HeLa cells and X. laevis oocytes was investigated using ClC-3 antisense. In situ hybridization in HeLa cells, semiquant. and real-time PCR, and immunoblot studies in HeLa cells and X. laevis oocytes demonstrated the presence of ClC-3 mRNA and protein, resp. Exposing both cell types to hypotonic solns. induced cell swelling and activated native VSOACs. Transient transfection of HeLa cells with ClC-3 antisense oligonucleotide or X. laevis oocytes injected with antisense cRNA abolished the native ClC-3 mRNA transcript and protein and significantly reduced the d. of native VSOACs activated by hypotonically induced cell swelling. In addition, antisense against native ClC-3 significantly impaired the ability of HeLa cells and X. laevis oocytes to regulate their volume These results suggest that ClC-3 is an important mol. component underlying VSOACs and the RVD process in HeLa cells and X. laevis oocytes.
AN 2002:783238 HCAPLUS <<LOGINID::20080919>>
DN 138:68463
TI ClC-3 Is a Fundamental Molecular Component of Volume-sensitive Outwardly Rectifying Cl- Channels and Volume Regulation in HeLa Cells and Xenopus laevis Oocytes
AU Hermoso, Marcela; Satterwhite, Christina M.; Andrade, Yanire Naty; Hidalgo, Jorge; Wilson, Sean M.; Horowitz, Burton; Hume, Joseph R.
CS Instituto de Ciencias Biomedicas, Facultad de Medicina Universidad de Chile, Santiago, 6530499, Chile
SO Journal of Biological Chemistry (2002), 277(42), 40066-40074
CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English
RE.CNT 69 THERE ARE 69 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 8 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Receptor-mediated endocytosis of phosphodiester oligonucleotides in the HepG2 cell line: evidence for non-conventional intracellular trafficking

AB Having identified an oligonucleotide (ON) receptor in the HepG2 cell line, we have re-examined here the kinetics of ON uptake, subcellular distribution and intracellular localization in these cells, at concns. relevant for the study of a receptor-dependent process. Kinetic parameters of ON endocytosis were comparable with those of the receptor-mediated endocytosis tracer, transferrin (uptake equilibrium, saturation with concentration, specific competition and rapid efflux) and were clearly distinct from those of fluid-phase endocytosis. By anal. subcellular fractionation, particulate ON showed a bimodal distribution after 2 h of uptake, with a low-d. peak superimposed on the distribution of endosomes, and a high-d. peak overlapping lysosomes. After an overnight chase, only the high-d. peak remained, but it could be dissociated from lysosomes, based on its refractoriness to displacement upon chloroquine-induced swelling. After 2 h of uptake at 300 nM ON-Alexa, a punctate pattern was resolved, by confocal microscopy, from those of transferrin, of a fluid-phase tracer, and of vital staining of lysosomes by LysoTracker. At 3 μM ON-Alexa, its pattern largely overlapped with the fluid- phase tracer and LysoTracker. Taken together, these data suggest that ON may be internalized at low concns. by receptor-mediated endocytosis into unique endosomes, then to dense structures that are distinct from lysosomes. The nature of these two compartments and their significance for ON effect deserve further investigation.

AN 2002:317786 HCAPLUS <<LOGINID::20080919>>

DN 137:106823

TI Receptor-mediated endocytosis of phosphodiester oligonucleotides in the HepG2 cell line: evidence for non-conventional intracellular trafficking

AU De Diesbach, Philippe; N'Kuli, Francisca; Berens, Catherine; Sonveaux, Etienne; Monsigny, Michel; Roche, Annie-Claude; Courtoy, Pierre. J.

CS Cell Biology Unit, Christian de Duve Institute of Cellular Pathology and Universite Catholique de Louvain, Brussels, B-1200, Belg.

SO Nucleic Acids Research (2002), 30(7), 1512-1521
CODEN: NARHAD; ISSN: 0305-1048

PB Oxford University Press

DT Journal

LA English

RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 9 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Tailor-made core-shell nanospheres for antisense oligonucleotide delivery: IV. Adsorption/release behaviour

AB The adsorption/release behavior of oligodeoxynucleotides (ODNs) on double functional core-shell polymethylmethacrylate nanospheres, with a narrow size distribution, is described. The outer shell consists of alkyl or glycolic chains containing permanently-charged quaternary ammonium groups. Ion pair formation between neg.-charged ODN phosphate groups and pos.-charged groups, present on the nanosphere surface, is the main mechanism of interaction. The amount of adsorbed ODN depends on both the ODN concentration and the nanosphere surface charge d. An adsorption-induced swelling mechanism is proposed in which a modification of the charged diffuse layer around the nanospheres increases the ODN binding site accessibility with increasing ODN concentration Adsorption on the nanosphere surface prevents serum degradation of the ODNs. ODN release is negligible in the presence of culture medium but occurs gradually in the presence of serum. No significant cytotoxicity of the free nanoparticles was found in PBMC and CEM cells after 24 h at ODN concns. required for antisense activity.

AN 2002:210140 HCAPLUS <<LOGINID::20080919>>

DN 137:268280
TI Tailor-made core-shell nanospheres for antisense oligonucleotide delivery: IV. Adsorption/release behaviour
AU Tondelli, Luisa; Canto, Elisa; Pistagna, Alessandra; Butto, Stefano; Tripiciano, Antonella; Cortesi, Rita; Sparnacci, Katia; Laus, Michele
CS C.N.R.I.Co.C.E.A., Bologna, 40129, Italy
SO Journal of Biomaterials Science, Polymer Edition (2001), 12(12), 1339-1357
CODEN: JBSEEA; ISSN: 0920-5063
PB VSP BV
DT Journal
LA English
RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 10 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Hepatocyte growth factor is essential for migration of myogenic cells and promotes their proliferation during the early periods of tongue morphogenesis in mouse embryos
AB Temporal and spatial occurrence of hepatocyte growth factor (HGF) and its cognate receptor c-Met in the mouse mandibular development was investigated by immunohistochem. and quant. reverse transcriptase-polymerase chain reaction. HGF was first recognized in the mesenchymal cells of the first branchial arch at the 10th day of gestation (E10), before tongue formation, whereas HGF receptor (c-Met)-pos. myogenic cells first appeared at E11 in the center of mandibles. By E12, HGF turned to be colocalized with c-Met in the differentiating tongue myoblasts. Between E14 and E12, HGF disappeared, whereas c-Met remained, in the tongue myoblasts. The levels of HGF mRNA in the developing tongue decreased in accordance with the increase of desmin mRNA levels from E11 to E17. These in vivo results strongly suggest that the HGF/c-Met system takes part in the earlier stages of tongue development. To elucidate this hypothesis, the antisense oligodeoxyribonucleotide (A-ODN) for mouse HGF mRNA was added to the organ culture system of mandible with serumless, defined medium. Mandibular arches from E10 mouse embryos were cultured at 37° for 10 days in the absence or presence of A-ODN, control (sense) oligonucleotide (C-ODN), or A-ODN plus recombinant HGF. In the control mandibular explants cultured without HGF or ODN, the anterior two-third of the tongue derived from the first branchial arch was formed. It contained abundant desmin-pos. myoblasts and was equivalent to the tongue of E14-E15. In contrast, in the presence of A-ODN in the medium, neither the swelling nor myogenic cells were found in the tongue-forming region of explants, and myogenic cells accumulated behind the tongue-forming region. Such dysplasia of tongue was never induced in the presence of C-ODN or A-ODN plus recombinant HGF in the medium. The effect of A-ODN appeared to be developmental stage-specific, because tongue dysplasia occurred when A-ODN was present during the earlier 4 days but not during the later 4 days of the culture. Furthermore, recombinant HGF added to the culture without ODNs during the earlier 4 days caused elevation in the number of mitotic myoblasts. These results suggest that HGF regulates both the migration and proliferation of myogenic cells during the earlier stages of tongue development.
AN 2002:145796 HCAPLUS <<LOGINID::20080919>>
DN 136:289344
TI Hepatocyte growth factor is essential for migration of myogenic cells and promotes their proliferation during the early periods of tongue morphogenesis in mouse embryos
AU Amano, Osamu; Yamane, Akira; Shimada, Mayumi; Koshimizu, Uichi; Nakamura, Toshikazu; Iseki, Shoichi
CS Department of Histology and Embryology, Kanazawa University Graduate School of Medical Science, Kanazawa, Japan

SO Developmental Dynamics (2002), 223(2), 169-179
CODEN: DEDYEI; ISSN: 1058-8388
PB Wiley-Liss, Inc.
DT Journal
LA English
RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 11 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Application of NFkB decoy oligonucleotides for arthritis as a gene therapy
AB Rheumatoid arthritis (RA) and collagen-induced arthritis(CIA) are characterized by hyperplasia of the synovium and progressive joint destruction. The transcription factor-κB (NFκB) plays a pivotal role in the coordinated transactivation of cytokine and adhesion mol. genes, whose activation has been postulated to be involved in destructive changes of articular cartilage and bone in arthritic joints. In particular. interleukin-1 (IL-1) and tumor necrosis factorα (TNFα) are important cytokines which perpetuate arthritis and induce joint destruction in both rheumatoid arthritis and collagen-induced arthritis. We hypothesized that synthetic double-stranded DNA high affinity for NFκB could be introduced in vivo as "decoy" cis elements to bind the transcription factor and to block the activation of proinflammatory cytokine genes such as IL-1 and TNFα. We reported here that in vivo transfection of NFκB decoy ODN by intraarticular injection into collagen-induced arthritis in rats improved paw swelling. Histol. and radiog. studies showed a marked suppression of joint destruction in ankles treated by NFκB decoy ODN transfection. NFκB decoy ODN also suppressed the production of IL-1 and TNFα by synovium in the arthritic joints. Results demonstrated that administration of NFκB decoy ODN in arthritic joints of collagen-induced arthritis in rats led to amelioration of arthritis. These findings suggest that intraarticular transfection of NFκB decoy ODN may provide a useful therapeutic strategy for inflammatory arthritis.
AN 2001:386549 HCAPLUS <<LOGINID::20080919>>
DN 136:48156
TI Application of NFkB decoy oligonucleotides for arthritis as a gene therapy
AU Tomita, Tetsuya; Morishita, Ryuichi; Tomita, Naruya; Kaneda, Yasufumi; Yoshikawa, Hideki; Ochi, Takahiro
CS Department of Orthopaedic Surgery, Osaka University Graduate School of Medicine, Japan
SO Ensho, Saisei (2001), 21(2), 101-108
CODEN: ENSHCC
PB Nippon Ensho-Saisei Igakkai
DT Journal
LA Japanese

L9 ANSWER 12 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Complex host cell responses to antisense suppression of ACHE gene expression
AB 3'-End-capped, 20-mer antisense oligodeoxynucleotides (AS-ODN) protected with 2'-O-Me (Me) or phosphorothioate (PS) substitutions were targeted to acetylcholinesterase (AChE) mRNA and studied in PC12 cells. Me-modified AS-ODN suppressed AChE activity up to 50% at concns. of 0.02-100 nM. PS-ODN was effective at 1-100 nM. Both AS-ODN displayed progressively decreased efficacy above 10 nM. In situ hybridization and confocal microscopy demonstrated dose-dependent decreases, then increases, in AChE mRNA. Moreover, labeling at nuclear foci suggested facilitated transcription or stabilization of AChE mRNA or both under AS-ODN. Intracellular concns. of biotinylated oligonucleotide equaled those of target mRNA at extracellular concns. of 0.02 nM, yet increased

only 6-fold at 1 μM ODN. Above 50 nM, sequence-independent swelling of cellular, but not nuclear, volume was observed Our findings demonstrate suppressed AChE expression using extremely low concns. of AS-ODN and attribute reduced efficacy at higher concns. to complex host cell feedback responses.

AN 2001:183493 HCAPLUS <<LOGINID::20080919>>
DN 134:348700
TI Complex host cell responses to antisense suppression of ACHE gene expression
AU Galyam, N.; Grisaru, D.; Grifman, M.; Melamed-Book, N.; Eckstein, F.; Seidman, S.; Eldor, A.; Soreq, H.
CS Department of Biological Chemistry, The Institute of Life Sciences, The Hebrew University of Jerusalem, 91904, Israel
SO Antisense & Nucleic Acid Drug Development (2001), 11(1), 51-57
CODEN: ANADF5; ISSN: 1087-2906
PB Mary Ann Liebert, Inc.
DT Journal
LA English
RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 13 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Novel drug delivery systems: Nanogel networks.
AB New functional nanosystems based on dispersed networks of cross-linked polyelectrolyte and nonionic hydrophilic polymer ("nanogels") are synthesized by crosslinking of polyethyleneimine (PEI) with poly(ethylene oxide) (PEO), using an emulsification/solvent evaporation technique followed by gel permeation chromatog. This produces small particles (50-200 nm), in which cationic chains (PEI) alternate with nonionic chains (PEO). As a result of the double functionality, these systems exhibit combined properties of a swollen polyelectrolyte network and a hydrophilic nonionic network. Polyelectrolyte chains exhibit the ability to bind oppositely charged counterions or macromols., leading to the collapse of the gel. Hydrophilic nonionic chains prevent precipitation and stabilize the particles in aqueous dispersions. Plasmid DNA and oligonucleotide mols. could be immobilized by simple mixing with nanogel suspensions. The loaded particles are stable in aqueous dispersions, exhibiting no aggregation over the extended periods of time. Nanogels can serve as carriers for delivery of a variety of biol. active compds.
AN 2000:798290 HCAPLUS <<LOGINID::20080919>>
TI Novel drug delivery systems: Nanogel networks.
AU Vinogradov, Serguei; Batrakova, Elena V.; Kabanov, Alexander V.
CS Department of Pharmaceutical Sciences, University of Nebraska Medical Center, Omaha, NE, 68198, USA
SO Abstracts of Papers, 220th ACS National Meeting, Washington, DC, United States, August 20-24, 2000 (2000) POLY-197
CODEN: 69FZC3
PB American Chemical Society
DT Journal; Meeting Abstract
LA English

L9 ANSWER 14 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Enhanced anti-inflammatory activity of a liposomal intercellular adhesion molecule-1 antisense oligodeoxynucleotide in an acute model of contact hypersensitivity
AB The anti-inflammatory activity of free and liposome-encapsulated oligonucleotide targeted against intercellular adhesion mol.-1 mRNA was investigated in a delayed type hypersensitivity model of acute inflammation in mice. Contact hypersensitivity reactions to 2,4-dinitrofluorobenzene were monitored by measuring ear thickness and cellular infiltration, both of which were observed to be maximal 24 h after

ear challenge. A murine-specific phosphorothioate oligodeoxynucleotide and various control sequences were each passively encapsulated into 100-nm diameter large unilamellar vesicles composed of egg phosphatidylcholine and cholesterol. All formulations were administered as a single-bolus injection into the tail vein .apprx. 15 min after initiating ear inflammation. Oligodeoxynucleotide dose was varied from 5 to 50 mg/kg and the extent of inflammation was assessed 24 h later. Mice treated with free oligonucleotide, empty vesicles, or encapsulated control sequences showed no measurable effect on ear swelling or cellular infiltration compared with untreated controls. However, mice that received the active sequence encapsulated in lipid vesicles exhibited near baseline levels of ear thickness and leukocyte infiltration, similar to that observed in mice treated with a topical corticosteroid. These data demonstrate the utility of liposome encapsulated intercellular adhesion mol.-1 antisense oligonucleotide as a novel anti-inflammatory therapeutic.

AN 2000:81334 HCAPLUS <<LOGINID::20080919>>

DN 132:241825

TI Enhanced anti-inflammatory activity of a liposomal intercellular adhesion molecule-1 antisense oligodeoxynucleotide in an acute model of contact hypersensitivity

AU Klimuk, Sandra K.; Semple, Sean C.; Nahirney, Patrick N.; Mullen, Michelle C.; Bennett, C. Frank; Scherrer, Peter; Hope, Michael J.

CS Department of Biochemistry and Molecular Biology, The University of British Columbia, Vancouver, BC, Can.

SO Journal of Pharmacology and Experimental Therapeutics (2000), 292(2), 480-488
CODEN: JPETAB; ISSN: 0022-3565

PB American Society for Pharmacology and Experimental Therapeutics

DT Journal

LA English

RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 15 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Synthesis of 3',5'-Dipeptidyl Oligonucleotides

AB Peptide-DNA hybrids are richly functionalized analogs of biomols. that may have applications as hybridization probes and antisense agents with tunable binding and targeting properties. So far, synthetic efforts have mainly focused on hybrids bearing a single peptide chain, either at the 5'- or the 3'-terminus. Such singly modified analogs are vulnerable to nuclease attack at the unmodified terminus. Here we report a convenient and high-yielding solid-phase synthesis of 3'- and 5'-modified analogs of DNA with aminoacyl and peptidyl appendages at both termini. Using MALDI-TOF mass spectra of crude products as the criterion, serine, glycolic acid, hydroxy-lauric acid, and di-Me hydroxy-propionic acid were tested as 3'-linker residues. The latter, together with a direct amide link at the 5'-terminus, gave the highest yields of hybrids. The optimized procedure assembles hybrids on a controlled pore glass support bearing three consecutive ω-hydroxy lauric acid linkers. This support greatly reduces side reactions observed with conventional supports, probably due to its ability to increase steric accessibility during coupling ("swelling") and its rapid hydrolysis during deprotection with ammonium hydroxide. Dihybrids with aromatic, basic, and acidic amino acid residues were prepared, including H-Phe-Gly-TGCGCA-DP-Phe-OH, where DP denotes the di-Me hydroxy-propionic acid linker, whose structure was confirmed via mass spectrometry and one- and two-dimensional NMR. Further, a mixed coupling with seven Fmoc-protected amino acids was shown to produce a combinatorial library of dipeptidyl DNA hybrids.

AN 1999:334457 HCAPLUS <<LOGINID::20080919>>

DN 131:102527

TI Synthesis of 3',5'-Dipeptidyl Oligonucleotides
AU Schwope, Ina; Bleczinski, Colleen F.; Richert, Clemens
CS Department of Chemistry, Tufts University, Medford, MA, 02155, USA
SO Journal of Organic Chemistry (1999), 64(13), 4749-4761
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 16 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Water-absorbent polymer as a carrier for a discrete deposit of antisense oligodeoxynucleotides in the central nervous system
AB One of the problems of introducing antisense oligodeoxynucleotides (ODN) into the central nervous system (CNS) is their rapid disappearance from the target site due to their dispersion and diffusion, which results in poor uptake and/or retention in cells (M. Morris, A.B. Lucion, Antisense oligonucleotides in the study of neuroendocrine systems, J. Neuroendocrinol. 7 (1995) 493-500; S. Ogawa, H.E. Brown, H.J. Okano, D.W. Pfaff, Cellular uptake of intracerebrally administrated oligodeoxynucleotides in mouse brain, Regul. Pept. 59 (1995) 143-149) [2,5]. Recently, we adapted a new method using water-absorbent polymer (WAP; internally cross-linked starch-grafted-polyacrylates) as a carrier for antisense ODN. The polymer forms a hydrogel after absorbing water which is chemical and biol. inert. In these studies, the polymer (powder-form) is fully swollen by physiol. saline containing antisense ODN (0.2 μmol/mL) to make 80-fold volume gel. Hydrogel (1 μL) is injected into the target site, and water solutes are assumed to be diffused stoichiometrically into CNS from the surface of the gel. Histol. studies indicate that 24 h after the injection, antisense ODN (5' biotinylated-S-oligos of 15 mer) are distributed to within 800 μm from the edge of the area where the gel is located and then gradually disappear from this area within days, but still remain within 300-μm distance 7 days later. Antisense ODN are effectively incorporated by all the cell types examined, i.e., neurons, astrocytes and microglias, and suppress the synthesis of the target protein. This method can be adapted to slow delivery of antisense ODN and other water soluble substances into the CNS.
AN 1998:744288 HCAPLUS <<LOGINID::20080919>>
DN 130:158351
TI Water-absorbent polymer as a carrier for a discrete deposit of antisense oligodeoxynucleotides in the central nervous system
AU Bannai, Makoto; Ichikawa, Masumi; Nishimura, Fusae; Nishihara, Masugi; Takahashi, Michio
CS Department of Veterinary Physiology, Veterinary Medical Science, The University of Tokyo, Tokyo, 113, Japan
SO Brain Research Protocols (1998), 3(1), 83-87
CODEN: BRPRFP; ISSN: 1385-299X
PB Elsevier Science B.V.
DT Journal
LA English
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 17 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Antisense to MDR1 mRNA reduces P-glycoprotein expression, swelling -activated Cl- current and volume regulation in bovine ciliary epithelial cells
AB Native ciliary epithelial cells from the ciliary epithelium of the eye exhibit anti-P-glycoprotein (P-gp) immunofluorescence. The authors have used an antisense "knock-down" approach to investigate the relation

between P-gp and the volume-activated chloride current (ICl,swell) and its role in volume regulation. An antisense oligonucleotide to the human multidrug resistance (MDR1) gene, taken up by the cells in a dose-dependent manner, reduced P-gp immunofluorescence, inhibited ICl, swell and significantly increased the latency of activation of ICl,swell. Increasing the hypotonic stress did not result in an increased activation of ICl,swell. MDR1 antisense "knock-down" also reduced the ability of the cells to volume regulate following a hypotonic challenge. These cells are known to express at least two volume-activated chloride channels, and the data suggest that P-gp is involved in the activation pathway of a subset of channels that contribute to whole-cell ICl,swell and participate in volume regulation.

AN 1998:634943 HCAPLUS <<LOGINID::20080919>>

DN 130:2375

TI Antisense to MDR1 mRNA reduces P-glycoprotein expression, swelling -activated Cl- current and volume regulation in bovine ciliary epithelial cells

AU Wang, Liwei; Chen, Lixin; Walker, Veronica; Jacob, Tim J. C.

CS School of Molecular and Medical Biosciences, University of Wales, Cardiff, CF1 3US, UK

SO Journal of Physiology (Cambridge, United Kingdom) (1998), 511(1), 33-44
CODEN: JPHYA7; ISSN: 0022-3751

PB Cambridge University Press

DT Journal

LA English

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

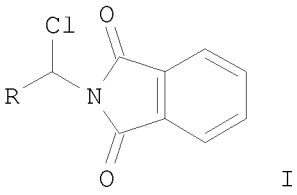
L9 ANSWER 18 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Production of proinflammatory cytokines and inflammatory mediators in human intestinal epithelial cells after invasion by Trichinella spiralis

AB Epithelial cells are the first point of host contact for invasive intestinal pathogens and may initiate mucosal inflammatory responses via production of proinflammatory cytokines and mediators. The aim of the present study was to investigate in vitro the initial invasion of a parasitic nematode (Trichinella spiralis), to measure the early production of specific epithelial cytokines and inflammatory mediators after invasion, and to compare these responses with those to invasive bacteria. Monolayers of human colonic epithelial cell lines (HT29, T84, and Caco-2) were infected by T. spiralis or Listeria monocytogenes. Bile-activated infective larvae of T. spiralis invaded and migrated into the epithelial cell monolayers, leaving trails of dead cells. Transmission electron microscopy studies of damaged cells along the trail showed a progressive increase in size, disruption of cell membranes, loss or dilution of cytoplasmic proteins, and swelling of mitochondria and nuclei. However, no nuclear fragmentation was observed With reverse transcription-PCR and an enzyme-linked oligonucleotide chemiluminescent assay, mRNA transcripts of interleukin-1β (IL-1β), IL-8, and epithelial neutrophil-activating peptide 78 were shown to increase in epithelial cells invaded by T. spiralis or L. monocytogenes, but only L. monocytogenes elicited increased inducible nitric oxide synthase (iNOS) mRNA. No increase in tumor necrosis factor alpha or transforming growth factor β mRNA was seen after T. spiralis invasion. Increased levels of IL-8 were also released from the basolateral surfaces of infected monolayers as detected by sandwich ELISA. Induction and secretion of proinflammatory cytokines in epithelial cells after nematode or bacterial invasion may initiate the acute inflammatory response of the small intestine. The upregulation of iNOS in bacterial infections may contribute to mucosal defense and may also be associated with subsequent cell death, whereas different mechanisms appear to operate after nematode

invasion.
AN 1998:296954 HCAPLUS <<LOGINID::20080919>>
DN 129:39982
OREF 129:8405a,8408a
TI Production of proinflammatory cytokines and inflammatory mediators in human intestinal epithelial cells after invasion by Trichinella spiralis
AU Li, Chris K. F.; Seth, Rashmi; Gray, Trevor; Bayston, Roger; Mahida, Yashwant R.; Wakelin, Derek
CS Department of Life Science, University of Nottingham, Nottingham, NG7 2RD, UK
SO Infection and Immunity (1998), 66(5), 2200-2206
CODEN: INFIBR; ISSN: 0019-9567
PB American Society for Microbiology
DT Journal
LA English
RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 19 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI A Reinvestigation of the Preparation, Properties, and Applications of Aminomethyl and 4-Methylbenzhydrylamine Polystyrene Resins
GI



I

AB Mild, efficient conditions have been developed for the preparation of 4-methylbenzhydrylamine polystyrene (MBHA) and aminomethyl polystyrene (AMPS) resins by a two-step procedure with synthons I (R = H, 4-MeC6H4). The products possess excellent swelling characteristics and acylate readily with linkers yielding useful derivs., which retain good swelling and reactivity. Comparative studies with these resins, and their poly(ethylene glycol) (PEG) derivs., yield insights into the role of spacer arm and environment effects in synthesis facilitation.
AN 1998:282984 HCAPLUS <<LOGINID::20080919>>
DN 129:16371
OREF 129:3521a,3524a
TI A Reinvestigation of the Preparation, Properties, and Applications of Aminomethyl and 4-Methylbenzhydrylamine Polystyrene Resins
AU Adams, J. Howard; Cook, Ronald M.; Hudson, Derek; Jammalamadaka, Vasu; Lyttle, Matthew H.; Songster, Michael F.
CS Solid-Phase Sciences, San Rafael, CA, 94903, USA
SO Journal of Organic Chemistry (1998), 63(11), 3706-3716
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 20 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Evaluation of the toxicity of ISIS 2302, a phosphorothioate

oligonucleotide, in a four-week study in cynomolgus monkeys
AB The toxicity of ISIS 2302, a phosphorothioate oligonucleotide with antisense activity against human intracellular adhesion mol.-1 mRNA, was investigated in cynomolgus monkeys (young adults). The oligonucleotide was administered by slow bolus injection every other day for 28 days (14 doses) at of 0, 2, 10, and 50 mg/kg/injection. The were sacrificed 2 days after the last dose. Addnl. monkeys in the control and 50-mg/kg dosage groups remained on study for a 28-day treatment-free period. No treatment-related deaths occurred during this study; however, one monkey in the 10-mg/kg group was markedly lethargic after the 1st dose. Other clin. observations included periocular swelling (≥10 mg/kg) on the 1st day of the study, and bruising in all dosage groups throughout the study. Bruising was associated with a dose-dependent prolongation of clotting times, particularly activated partial thromboplastin times, that was transient in nature. Bruises occurred around the site of i.v. injection or blood collection, and were manifested as s.c. hemorrhages. There were no corresponding alterations in hematol. parameters, including erythrocyte or platelet counts. Other treatment-related microscopic alterations noted were intracytoplasmic eosinophilic granules and vacuolation in proximal tubular epithelial cells in animals given 10 and 50 mg/kg, with free erythrocyte in the renal proximal tubular lumens at 50 mg/kg. Serum chemical parameters including blood urea N and creatinine levels were normal in all dosage groups and there were no notable alterations in urinalysis parameters. Granules and vacuolations in kidneys were reversed following a 4-wk treatment-free period. In general, 10 and 50 mg ISIS 2302/kg produced dose-dependent changes in clotting times and the kidneys that were reversible, while 2 mg ISIS 2302/kg produced no marked alterations.
AN 1997:400751 HCAPLUS <<LOGINID::20080919>>
DN 127:28800
OREF 127:5385a,5388a
TI Evaluation of the toxicity of ISIS 2302, a phosphorothioate oligonucleotide, in a four-week study in cynomolgus monkeys
AU Henry, Scott P.; Bolte, Henry; Auletta, Carol; Kornbrust, Douglas J.
CS Dep. Toxicol., Isis Pharm. Inc., Carlsbad, CA, 92008, USA
SO Toxicology (1997), 120(2), 145-155
CODEN: TXCYAC; ISSN: 0300-483X
PB Elsevier
DT Journal
LA English
RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 21 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Synthesis and purification in a single column on a high-throughput automated oligonucleotide production system
AB A symposium on Merrifield synthesis and purification of oligodeoxyribonucleotides in a single column filled with a mixture of nucleoside-loaded and underivatized, high-cross link, non-swelling polystyrene beads.
AN 1996:85640 HCAPLUS <<LOGINID::20080919>>
DN 124:233001
OREF 124:43187a,43190a
TI Synthesis and purification in a single column on a high-throughput automated oligonucleotide production system
AU Andrus, Alex; Wright, Peter; Wang, John; Mallah, Bashar; Baier, Jorg; Mason, Glenn; Kaufman, Jay
CS Applied Biosystems Division, Perkin Elmer Co., Foster City, CA, 94404, USA
SO Nucleic Acids Symposium Series (1995), 34(Twentysecond Symposium on Nucleic Acids Chemistry, 1995), 183-4
CODEN: NACSD8; ISSN: 0261-3166

PB IRL Press
DT Journal
LA English

L9 ANSWER 22 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Volume-sensitive chloride channel activity does not depend on endogenous P-glycoprotein
AB To determine whether endogenous P-glycoprotein, the MDR1 gene product that functions as a drug transport pump, is a volume-sensitive Cl- channel mol. or a protein kinase C-mediated regulator of the Cl- channel, whole-cell patch-clamp and mol. biol. expts. were carried out in a human small intestinal epithelial cell line. Endogenous expression of P-glycoprotein was confirmed by Northern blot anal., reverse transcription-polymerase chain reaction, Western blot anal., and immunostaining. The P-glycoprotein expression was abolished by the antisense (but not sense) oligonucleotide for the MDR1 gene, whereas the magnitude of the Cl- current activated by osmotic swelling was not distinguishable between both antisense- and sense-treated cells. The volume-sensitive Cl- currents were not specifically affected by the anti-P-glycoprotein monoclonal antibodies, MRK16, C219, and UIC2. An inhibitor of P-glycoprotein-mediated pump activity, verapamil, was found to never affect the Cl- current. A substrate for the P-glycoprotein-mediated drug pump, vincristine or daunomycin, did not prevent swelling-induced activation of the Cl- current. Furthermore, the Cl- current was not affected by an activator of protein kinase C (12-O-tetradecanoylphorbol-13-acetate or 1-oleoyl-2-acetyl-sn-glycerol). Thus, it is concluded that the endogenous P-glycoprotein mol. is not itself a volume-sensitive Cl- channel nor a protein kinase C-mediated regulator of the channel in the human epithelial cells.
AN 1995:950283 HCAPLUS <<LOGINID::20080919>>
DN 124:26497
OREF 124:5043a,5046a
TI Volume-sensitive chloride channel activity does not depend on endogenous P-glycoprotein
AU Tominaga, Makoto; Tominaga, Tomoko; Miwa, Akiko; Okada, Yasunobu
CS Dep. Cell. Mol. Physiol., Natl. Inst. Physiol. Sci., Okazaki, 444, Japan
SO Journal of Biological Chemistry (1995), 270(46), 27887-93
CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Bio logy
DT Journal
LA English

L9 ANSWER 23 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Antisense oligonucleotide down-regulation of E-cadherin in the yolk sac and cranial neural tube malformations
AB The cadherins are a family of calcium-dependent cell adhesion mols. that are regulated both spatially and temporally during development. Epithelial cadherin (E-cadherin) is present in epithelial cells in both the embryo and yolk sac during organogenesis. The consequences of disrupting the expression of E-cadherin at this stage of development are poorly understood. The authors report here the studies on the effects of antisense oligonucleotides on E-cadherin in the rat whole embryo culture system. Four 18-base single strand phosphorothioate oligodeoxynucleotides (AS-oligos), complementary to various regions of the mouse E-cadherin cDNA sequence, were dissolved in saline and injected into the amniotic cavities of 5-7 somite rat embryos; a sense (S-oligo) to oligo-1, an 18-base random sequence oligo (C-oligo), and PBS were used as controls. Embryos were cultured for up to 45 h; embryo morphol. and the relative concns. of E-cadherin protein were examined All six oligonucleotides (AS-oligos and control oligos) induced malformations when amts. ranging from 25 to 50 pmol of oligonucleotide were injected per embryo. The

malformations induced by all the oligos included craniofacial hypoplasia, an enlarged pericardium, twisted spinal cord, swelling of the rhombencephalon, and underdeveloped forelimb. Injection of AS-oligo-1, a sequence starting at the tenth base downstream from the translation initiation codon (ATG), resulted in malformed embryos with a high incidence of cranial neural tube malformations. The effects of AS-oligo-1 on the relative abundance of E- and neural (N)-cadherin proteins were examined by Western blot anal. In the AS-oligo-1-exposed malformed embryos, the relative abundance of E- and N-cadherin proteins was not altered up to 24 h after injection; E- and N-cadherin concns. in the embryo were decreased at 45 h postinjection. In contrast, the relative abundance of the E-cadherin protein in the yolk sac was reduced at 1-2 h after injection of AS oligo-1 and returned to control levels by 4 h. S-oligo-1 did not induce any change in the relative abundance of E- or N-cadherins. Thus, there was a tissue-specific and temporary knockdown of E-cadherin expression in the yolk sac of embryos exposed to antisense (AS-oligo-1); the down-regulation of yolk sac E-cadherin appears to lead to the induction of neural tube defects in the embryo. The exposure of whole embryos in culture to antisense oligonucleotides provides a model system in which the roles of developmentally important mols. and their spatial and temporal contributions to embryogenesis can be elucidated.

AN 1995:878501 HCAPLUS <<LOGINID::20080919>>
DN 123:281811
OREF 123:50415a,50418a
TI Antisense oligonucleotide down-regulation of E-cadherin in the yolk sac and cranial neural tube malformations
AU Chen, Beiyun; Hales, Barbara F.
CS Department Pharmacology Therapeutics, McGill University, Montreal, QC, Can.
SO Biology of Reproduction (1995), 53(5), 1229-38
CODEN: BIREBV; ISSN: 0006-3363
PB Society for the Study of Reproduction
DT Journal
LA English

L9 ANSWER 24 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI A versatile vector for gene and oligonucleotide transfer into cells in culture and in vivo: polyethylenimine
AB Several polycations possessing substantial buffering capacity below physiol. pH, such as lipopolyamines and polyamidoamine polymers, are efficient transfection agents per se-i.e., without the addition of cell targeting or membrane-disruption agents. This observation led the authors' to test the cationic polymer polyethylenimine (PEI) for its gene-delivery potential. Indeed, every third atom of PEI is a protonable amino nitrogen atom, which makes the polymeric network an effective "proton sponge" at virtually any pH. Luciferase reporter gene transfer with this polycation into a variety of cell lines and primary cells gave results comparable to, or even better than, lipopolyamines. Cytotoxicity was low and seen only at concns. well above those required for optimal transfection. Delivery of oligonucleotides into embryonic neurons was followed by using a fluorescent probe. Virtually all neurons showed nuclear labeling, with no toxic effects. The optimal PEI cation/anion balance for in vitro transfection is only slightly on the cationic side, which is advantageous for in vivo delivery. Indeed, intracerebral luciferase gene transfer into newborn mice gave results comparable (for a given amount of DNA) to the in vitro transfection of primary rat brain endothelial cells or chicken embryonic neurons. Together, these properties make PEI a promising vector for gene therapy and an outstanding core for the design of more sophisticated devices. The hypothesis is that its efficiency relies on extensive lysosome buffering that protects DNA from nuclease degradation, and consequent lysosomal swelling and

rupture that provide an escape mechanism for the PEI/DNA particles.
AN 1995:736555 HCAPLUS <<LOGINID::20080919>>
DN 123:160579
OREF 123:28319a,28322a
TI A versatile vector for gene and oligonucleotide transfer into cells in culture and in vivo: polyethylenimine
AU Boussif, Otmane; Lezoualc'h, Frank; Zanta, Maria Antonietta; Mergny, Mojgan Djavaheri; Scherman, Daniel; Demeneix, Barbara; Behr, Jean-Paul
CS Lab. Chim. Genetique, Unite Recherche Associee 1386, Cent. Natl. Recherche Scientifique, Fac. Pharmacie, Illkirch, F-67401, Fr.
SO Proceedings of the National Academy of Sciences of the United States of America (1995), 92(16), 7297-301
CODEN: PNASA6; ISSN: 0027-8424
PB National Academy of Sciences
DT Journal
LA English

L9 ANSWER 25 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Interleukin-4 is a critical cytokine in contact sensitivity
AB This study demonstrates an essential role for interleukin-4 (IL-4) in the delayed hypersensitivity reaction, as illustrated by contact sensitivity (CS) to trinitrochlorobenzene (TNCB). Injection of mice with monoclonal antibody to IL-4, but not with control antibody, reduced CS after active immunization by 75%, as judged by ear swelling. The histol. alterations of CS were also reduced. IL-4 was essential to the effector stage, as inhibition of its production or action blocked the passive transfer of CS. In particular, treatment of immune lymph node cells with antisense oligonucleotide to IL-4 inhibited the systemic transfer of CS. Transfer was also inhibited by monoclonal antibody to IL-4 given to the recipient. The present results indicate that IL-4 is an essential cytokine at the effector stage of the CS reaction.
AN 1995:437019 HCAPLUS <<LOGINID::20080919>>
DN 122:207320
OREF 122:37705a,37708a
TI Interleukin-4 is a critical cytokine in contact sensitivity
AU Salerno, A.; Dieli, F.; Sireci, G.; Bellavia, A.; Asherson, G. L.
CS Immunopathol. Sect., Univ. Palermo, Palermo, Italy
SO Immunology (1995), 84(3), 404-9
CODEN: IMMUAM; ISSN: 0019-2805
PB Blackwell
DT Journal
LA English

L9 ANSWER 26 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI A 25-kDa β-lactam-induced outer membrane protein of Vibrio cholerae. Purification and characterization
AB A 25-kDa outer membrane protein, induced following treatment of Vibrio cholerae cells with β-lactam antibiotics and constituting about 8-10% of the total outer membrane proteins of β-lactam-resistant mutants, has been purified to homogeneity. It is a basic (pI 8.5) protein rich in β-sheet structure and is a homodimer, the monomers being held together by hydrophobic interactions. The effective hydrophobicity of the protein is low, and a large part of the protein is exposed on the surface of the outer membrane. The protein does not have β-lactamase or autolytic activity and is not a penicillin-binding protein. The Stoke's radius of the 25-kDa protein (26 Å) is comparable to the pore size of the V. cholerae OmpF-like porin. Proteoliposome swelling assay showed that the 25-kDa protein might block the pores of OmpF through which β-lactam antibiotics normally enter the cells. Twenty-two amino acid residues from the N-terminal end of the 25-kDa protein have been sequenced, and a 32-mer oligonucleotide probe was synthesized

using the amino acid residues 2-12. This probe was used to identify the gene encoding the 25-kDa protein. The β-lactam-resistant cells are insensitive to changes in the osmolarity of the growth medium in contrast to the wild type cells which exhibit osmoregulation of OmpF and OmpC synthesis. All β-lactam-resistant mutants examined are resistant to novobiocin.
AN 1995:372247 HCAPLUS <<LOGINID::20080919>>
DN 122:259007
OREF 122:47109a,47112a
TI A 25-kDa β-lactam-induced outer membrane protein of Vibrio cholerae. Purification and characterization
AU Deb, Amitabha; Bhattacharyya, Debasish; Das, Jyotirmoy
CS Department of Biophysics, Indian Institute of Chemical Biology, Calcutta, 700032, India
SO Journal of Biological Chemistry (1995), 270(7), 2914-20
CODEN: JBCHA3; ISSN: 0021-9258
PB American Society for Biochemistry and Molecular Biology
DT Journal
LA English

L9 ANSWER 27 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI A new support for automated oligonucleotide synthesis
AB A symposium on a particular form of polystyrene as a solid support for automated oligonucleotide synthesis. The non-swelling , rigid beads possess the attractive features of rapid reaction kinetics, fast washing with organic solvents, and mech. stability. Parameters such as pore size, particle size, and polymerization formula and conditions have been optimized. The support material is derivatized to give primary amino functionality, which is near quant. coupled to 3' p-nitrophenyl succinate nucleosides. Side reactions such as extraneous chain growth are minimized due to the lack of reactive functionality on the new support surface.
AN 1993:234651 HCAPLUS <<LOGINID::20080919>>
DN 118:234651
OREF 118:40669a,40672a
TI A new support for automated oligonucleotide synthesis
AU Andrus, Alex; McCollum, Christie
CS Appl. Biosyst., Foster City, CA, 94404, USA
SO Innovation Perspect. Solid Phase Synth. Collect. Pap., Int. Symp., 1st (1990), Meeting Date 1989, 211-15. Editor(s): Epton, Roger. Publisher: SPCC (UK), Birmingham, UK.
CODEN: 58IYAT
DT Conference
LA English

L9 ANSWER 28 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Non-aromatic organic polymeric reagents for solid-phase synthesis of oligomers
AB A polymer for solid-phase synthesis of oligodeoxyribonucleotides has substantially the same d. as the solvents used in the synthesis, is resistant to strong base, does not swell substantially in the solvents, and has a particle size of 10-200 μ and a pore size of 60-2000 Å. A methacrylic polymer based on 2-hydroxyethyl methacrylate or ethylene dimethylacrylate is preferred. Thus, hydroxylated polymethacrylate beads were derivatized with 1,12-dodecanediamine and protected succinyldeoxyguanosine and used to prepare 5'-GTCTTCCTGCCCCATTGC-3' by the phosphonamidite method, using iodine in a solvent with low water content as the oxidant.
AN 1992:551292 HCAPLUS <<LOGINID::20080919>>
DN 117:151292
OREF 117:26225a,26228a
TI Non-aromatic organic polymeric reagents for solid-phase synthesis of

oligomers
IN Klem, Robert E.; Riley, Timothy A.
PA Genta Inc., USA
SO PCT Int. Appl., 39 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9207882	A1	19920514	WO 1991-US7915	19911025 <--
	W: AU, CA, FI, JP, KR, NO, SU				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, NL, SE				
	CA 2094595	A1	19920427	CA 1991-2094595	19911025 <--
	AU 9189122	A	19920526	AU 1991-89122	19911025 <--
	AU 668855	B2	19960523		
	EP 554407	A1	19930811	EP 1992-902557	19911025 <--
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
	JP 06502667	T	19940324	JP 1992-500819	19911025 <--
	IL 99862	A	19950629	IL 1991-99862	19911025 <--
	US 5723599	A	19980303	US 1995-409902	19950322 <--
PRAI	US 1990-605849	A	19901026 <--		
	US 1991-781329	A	19911018 <--		
	WO 1991-US7915	A	19911025 <--		
	US 1994-231900	B1	19940422 <--		

L9 ANSWER 29 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Carriers for immobilization of nucleic acids for determination of mutation
AB Polymeric carriers for immobilization of nucleic acids to be used for detection of mutation exhibit the following characteristics: (1) non-porous and OH-containing surface; (2) insol. in water and organic solvents; (3) particle sizes of 0.1-10 μm; and optionally, (4) not swollen in water. A polymer NPR (by Toyo Soda, Co.) was activated with tresylchloride in the presence of pyridine. The activated polymer was used as a carrier for immobilizing 21-mer oligonucleotide probes through 5'-end amino groups and packed for column chromatog. Nucleic acid samples complementary to the probes were eluted in a sharper peak than that of using the porous carrier.
AN 1992:189122 HCAPLUS <<LOGINID::20080919>>
DN 116:189122
OREF 116:31883a,31886a
TI Carriers for immobilization of nucleic acids for determination of mutation
IN Suyama, Akira; Yamagishi, Hiroaki; Tagawa, Masahiro; Mitsuma, Tatsuya
PA Tosoh Corp., Japan
SO Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03292899	A	19911224	JP 1990-94238	19900410 <--
	JP 3177843	B2	20010618		
PRAI	JP 1990-94238		19900410 <--		

L9 ANSWER 30 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI An optimized polystyrene support for rapid, efficient oligonucleotide synthesis
AB An optimized type of polystyrene was developed as a solid support for automatic oligonucleotide synthesis. The non-swelling , rigid beads possess the attractive features of rapid reaction kinetics,

efficient washing with organic solvents, and mech. stabilities. Pore size, particle size, and polymerization formula and conditions were optimized. The support material is derivatized to give primary amino functionality which is nearly quant. coupled to 3'-p-nitrophenyl succinate nucleosides. Loading of the nucleosides can be precisely controlled in a range of 5 to 70 μmol/g. The high yield synthesis of oligonucleotides, by phosphoramidite chemical was demonstrated up to 120 bases in length. Side reactions, such as extraneous chain growth, are minimized due to the lack of reaction functionality on the new support surface.

AN 1991:656523 HCAPLUS <<LOGINID::20080919>>
DN 115:256523
OREF 115:43645a,43648a
TI An optimized polystyrene support for rapid, efficient oligonucleotide synthesis
AU McCollum, Christie; Andrus, Alex
CS Appl. Biosyst. Inc., Foster City, CA, 94404, USA
SO Tetrahedron Letters (1991), 32(33), 4069-72
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA English

L9 ANSWER 31 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Molecular characterization of a major autoantibody-associated cross-reactive idiotype in Sjogren's syndrome
AB Primary Sjogren's syndrome is an autoimmune disorder characterized by lymphocytic infiltration of the salivary and lacrimal glands, producing associated dry eyes (keratoconjunctivitis sicca), dry mouth, and intermittently swollen salivary glands. A high proportion of the infiltrating B lymphocytes express surface and cytoplasmic Ig bearing a κ-L chain-associated cross-reactive idiotype (CRI) defined by reactivity with the murine mAb, 17.109. To determine the structural basis for CRI expression in this disease, the authors generated CRI+ lymphoblastoid extracted from Sjogren's syndrome patients' salivary gland biopsy specimens. Nucleic acid sequence analyses of the mRNA of one such 17.109-CRI+ lymphoblastoid cell line (NOV) reveals the expressed kappa light chain variable region gene (Vκ gene) to be homologous to Humkv325, a conserved Vκ gene used at relatively high frequency in certain B cell malignancies. In addition, synthetic oligonucleotides, corresponding to the first and third frameworks and the second complementarity determining region of the Humkv325 gene, were used to identify and isolate clones from a cDNA library generated from SS salivary gland lymphocytes. Clones annealing specifically with one or more of these oligonucleotide probes contained kappa light chain cDNA. The sequences corresponding to the variable region of two clones (Taykv320 and Taykv306) were homologous to Humkv325. The Vκ genes of four other cDNA clones (Taykv322, Taykv310, Taykv308, and Taykv312) most likely were generated somatically from the rearranged Humkv325 gene through a limited number of nucleic acid base substitutions. The high frequency of 17.109-CRI expression in Sojgren's syndrome patients results from a multiclonal expansion of B cell using Humkv325, and that the expressed Humkv325 may undergo somatic diversification in an apparent antigen-driven response.

AN 1989:476291 HCAPLUS <<LOGINID::20080919>>
DN 111:76291
OREF 111:12851a,12854a
TI Molecular characterization of a major autoantibody-associated cross-reactive idiotype in Sjogren's syndrome
AU Kipps, Thomas J.; Tomhave, Eric; Chen, Pojen P.; Fox, Robert I.
CS Dep. Mol. Exp. Med., Scripps Clin. and Res. Found., La Jolla, CA, 92037, USA
SO Journal of Immunology (1989), 142(12), 4261-8

CODEN: JOIMA3; ISSN: 0022-1767
DT Journal
LA English

L9 ANSWER 32 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Purification of fully protected oligonucleotide phosphotriester intermediates by gel filtration on Sephadex LH-60
AB Fully protected oligodeoxyribonucleotide phosphotriester intermediates were purified on an anal. or preparative scale with excellent recoveries by gel filtration chromatog. on Sephadex LH 60 with the eluent THF-MeOH (95:5). The purified compds. can be either completely deblocked to give oligonucleotides or selectively deblocked for use in coupling reactions in oligonucleotides synthesis. The Sephadex LH 60 was swollen in distilled THF for 2 h and packed into a 150 + 3 cm column. Samples were applied as 20-5% solns. in the eluent, and elution was by gravity flow, with relatively high flow rates (45-60 mL/h) still giving good resolution A typical run required .apprx.8 h. This method has many advantages over the commonly used procedure of short-column chromatog. on silica gel in CHCl3-MeOH.
AN 1979:435061 HCAPLUS <<LOGINID::20080919>>
DN 91:35061
OREF 91:5691a,5694a
TI Purification of fully protected oligonucleotide phosphotriester intermediates by gel filtration on Sephadex LH-60
AU De Rooij, J. F. M., Jr.; Arentzen, R.; Den Hartog, J. A. J.; Van der Marel, G.; Van Boom, J. H.
CS Dep. Org. Chem., State Univ. Leiden, Leiden, 2300 RA, Neth.
SO Journal of Chromatography (1979), 171, 453-9
CODEN: JOCRAM; ISSN: 0021-9673
DT Journal
LA English

L9 ANSWER 33 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
TI Synthesis of oligonucleotides on a polymeric carrier. II.
AB A highly crosslinked styrene-divinylbenzene copolymer was acylated with BzCl or p-MeOC6H4COCl in PhNO2 in a Friedel-Crafts reaction, and then treated in a quant. Grignard reaction with p-bromoanisole. The product was refluxed with AcCl in benzene or treated with Ac2O and HCl at 0°, giving a polymer containing 1 trityl chloride group/19 units. This polymer did not swell, and could be loaded up to 50-60% with 3'-O-acetyl-deoxythymidine and up to 5-10% with dTpTOAc. The synthesized oligonucleotide chains were removed by treating with 80% AcOH for 1 hr. at 70° or 6 hrs. at room temperature, or by a pyridine-HOAc buffer. The reactions were stopped by precipitation with anhydrous ether, and the excess triisopropylbenzenesulfonyl chloride, used to attach the nucleotide bond, was removed by ether washing. Excess nucleotide was eluted with 20% aqueous pyridine. Nucleotides prepared were dTpT, dTpTpX (X = A, C, or G), dTpTpTpT, and dTpTpTpTpTpT.
AN 1968:444155 HCAPLUS <<LOGINID::20080919>>
DN 69:44155
OREF 69:8295a,8298a
TI Synthesis of oligonucleotides on a polymeric carrier. II.
AU Cramer, F.; Koester, H.
CS Max-Planck-Inst. Exp. Med., Goettingen, Fed. Rep. Ger.
SO Angewandte Chemie, International Edition in English (1968), 7(6), 473-4
CODEN: ACIEAY; ISSN: 0570-0833
DT Journal
LA English

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=> d his

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     FILE 'HCAPLUS' ENTERED AT 11:57:47 ON 19 SEP 2008
L1         61710 S OLIGONUCLEOTIDE
L2         32248 S BENZOTRIAZOLE OR IMIDAZOLIUM OR BENZIMIDAZOLIUM OR SACCHARINE
L3         44123 S BENZOTRIAZOLE OR IMIDAZOLIUM OR BENZIMIDAZOLIUM OR SACCHARINE
L4        466534 S POLYSTYRENE OR (POLYETHYLENE GLYCOL) OR TENTAGEL OR POLYVINYL
L5            11 S L1 AND L3 AND L4
L6        122260 S SWELL OR SWELLING OR SWOLLEN
L7             1 S L1 AND L3 AND L6
L8            52 S L1 AND L6
L9            33 S L8 AND (PY<2003 OR AY<2003 OR PRY<2003)

=> log hold

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                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   147.09     147.30

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
                                                       ENTRY    SESSION
CA SUBSCRIBER PRICE                                    -36.00     -36.00

 SESSION WILL BE HELD FOR 120 MINUTES
STN INTERNATIONAL SESSION SUSPENDED AT 13:32:39 ON 19 SEP 2008

Connecting via Winsock to STN



Welcome to STN International!  Enter x:X

LOGINID:SSPTAEXO1623

PASSWORD:
 * * * * * * RECONNECTED TO STN INTERNATIONAL * * * * * *
SESSION RESUMED IN FILE 'HCAPLUS' AT 14:22:04 ON 19 SEP 2008
FILE 'HCAPLUS' ENTERED AT 14:22:04 ON 19 SEP 2008
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COST IN U.S. DOLLARS                                SINCE FILE      TOTAL
                                                       ENTRY    SESSION
FULL ESTIMATED COST                                   147.09     147.30

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)          SINCE FILE      TOTAL
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CA SUBSCRIBER PRICE                                    -36.00     -36.00

=> s saccharin
L10        12054 SACCHARIN

=> s oligonucleotide
L11        61710 OLIGONUCLEOTIDE

=> s synthe?
L12      2361461 SYNTHE?
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=> s l10 and l22 and l12
L22 NOT FOUND
The L-number entered could not be found.  To see the definition
of L-numbers, enter DISPLAY HISTORY at an arrow prompt (=>).

=> s l10 and l11 and l12
L13          2 L10 AND L11 AND L12

=> d l13 1-2 ti abs bib

L13  ANSWER 1 OF 2  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI   Design and fabrication of microwell array chips for a solution-based,
     photogenerated acid-catalyzed parallel oligonucleotide DNA
     synthesis
AB   Development of synthesis methods using high yield acid-labile
     rather than photolabile group protected monomers is desirable to produce
     microarrays of superior quality, general adaptability and reduced cost of
     genetic research.  However, using solution photochem. for acid-labile
     deprotection requires the reaction sites being isolated from each other to
     prevent diffusion of reagents during a photolytic reaction.  The authors
     present fabrication methods of two types of microwell array chips with
     different isolation strategies for carrying out parallel
     oligonucleotide DNA (oDNA) synthesis in the liquid phase:
     electroplated microwell array chips with an isolation wall and a mech.
     sealing, and etched patterned microwell array chips with surface tension
     isolation.  Both surface and bulk micromachining technologies were used
     for fabrication of those chips.  The author also discuss various problems
     regarding fabrication and use.  The validated fidelity from the single
     mismatch detection of oligonucleotide DNA microwell array chips
     is also given to prove successful isolation of the liquid during a
     photolytic reaction.
AN   2004:730188  HCAPLUS <<LOGINID::20080919>>
DN   143:68221
TI   Design and fabrication of microwell array chips for a solution-based,
     photogenerated acid-catalyzed parallel oligonucleotide DNA
     synthesis
AU   Srivannavit, Onnop; Gulari, Mayurachat; Gulari, Erdogan; LeProust, Eric;
     Pellois, Jean Philippe; Gao, Xiaolian; Zhou, Xiaochuan
CS   Department of Chemical Engineering, University of Michigan, Ann Arbor, MI,
     48109, USA
SO   Sensors and Actuators, A: Physical (2004), A116(1), 150-160
     CODEN: SAAPEB; ISSN: 0924-4247
PB   Elsevier B.V.
DT   Journal
LA   English
RE.CNT  23    THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13  ANSWER 2 OF 2  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI   Process for the solid phase preparation of oligodeoxyribonucleotides using
     heterocycle activators
GI
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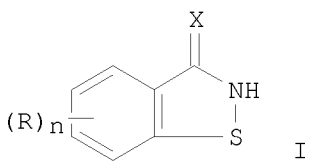

I

AB A process for the synthesis of an oligonucleotide is provided in which an oligonucleotide is assembled on a swellable solid support using the phosphoramidite approach in the presence of an activator I, wherein n is 0-4; R for each occurrence is a substituent, or two adjacent R groups taken together with the carbon atoms to which they are attached form a six membered saturated or unsatd. ring; and X is O or S; the activator is not tetrazole or a substituted tetrazole. Preferred activators are pyridinium, imidazolinium and benzimidazolinium salts; benzotriazole and derivs. thereof; and saccharin or a saccharin derivative Preferred swellable solid supports comprise functionalized polystyrene, partially hydrolyzed polyvinyl-acetate or poly(acrylamide).

AN 2004:534221 HCAPLUS <<LOGINID::20080919>>
DN 141:54582

TI Process for the solid phase preparation of oligodeoxyribonucleotides using heterocycle activators

IN Mccormac, Paul
PA Avecia Limited, UK

SO PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DT Patent
LA English

FAN.CNT 4

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004055036	A1	20040701	WO 2003-GB5464	20031216
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	WO 2003091267	A1	20031106	WO 2003-GB1795	20030425
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	AU 2003292423	A1	20040709	AU 2003-292423	20031216
	EP 1575975	A1	20050921	EP 2003-768001	20031216
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	CN 1747963	A	20060315	CN 2003-80109693	20031216
	CN 100384864	C	20080430		
	JP 2006512411	T	20060413	JP 2005-502460	20031216
	US 20060149052	A1	20060706	US 2006-539625	20060103
PRAI	GB 2002-29443	A	20021218		
	WO 2003-GB1795	A	20030425		
	GB 2002-9539	A	20020426		

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     WO 2003-GB5464       W     20031216
OS   CASREACT 141:54582; MARPAT 141:54582
RE.CNT  5     THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> file registry
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FULL ESTIMATED COST                                     158.29     158.50

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CA SUBSCRIBER PRICE                                     -37.60     -37.60

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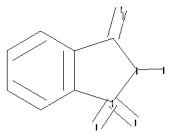

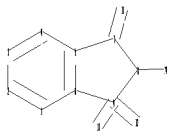

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11 12 13 14
ring nodes :
1 2 3 4 5 6 7 8 9
chain bonds :
7-11 8-14 9-12 9-13
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-9 7-8 8-9
exact/norm bonds :
5-7 6-9 7-8 7-11 8-9 9-12 9-13
exact bonds :
8-14
normalized bonds :
1-2 1-6 2-3 3-4 4-5 5-6

G1:O,S

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 11:CLASS
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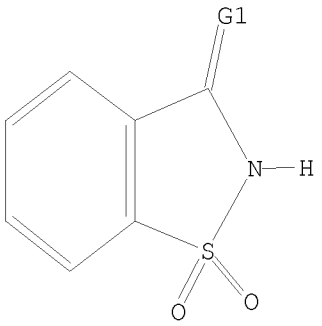

G1 O,S

Structure attributes must be viewed using STN Express query preparation.

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SAMPLE SCREEN SEARCH COMPLETED -   1007 TO ITERATE

100.0% PROCESSED   1007 ITERATIONS   50 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS: 18237 TO   22043
PROJECTED ANSWERS: 948 TO   1972

L15   50 SEA SSS SAM L14

=> s l14 sss full
FULL SEARCH INITIATED 14:27:17 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -   19311 TO ITERATE

100.0% PROCESSED   19311 ITERATIONS   1527 ANSWERS
SEARCH TIME: 00.00.01

L16   1527 SEA SSS FUL L14

=> file hcaplus
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DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)   SINCE FILE   TOTAL

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CA SUBSCRIBER PRICE                                     0.00     -37.60

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FILE COVERS 1907 - 19 Sep 2008 VOL 149 ISS 13
FILE LAST UPDATED: 18 Sep 2008 (20080918/ED)

HCAplus now includes complete International Patent Classification (IPC)
reclassification data for the second quarter of 2008.

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This file contains CAS Registry Numbers for easy and accurate
substance identification.

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=> s l16
L17       8510 L16

=> s l11 and l17
L18          3 L11 AND L17

=> d l18 1-3 ti abs bib

L18  ANSWER 1 OF 3  HCAPLUS  COPYRIGHT 2008 ACS on STN
TI   Design and fabrication of microwell array chips for a solution-based,
     photogenerated acid-catalyzed parallel oligonucleotide DNA
     synthesis
AB   Development of synthesis methods using high yield acid-labile rather than
     photolabile group protected monomers is desirable to produce microarrays
     of superior quality, general adaptability and reduced cost of genetic
     research.  However, using solution photochem. for acid-labile deprotection
     requires the reaction sites being isolated from each other to prevent
     diffusion of reagents during a photolytic reaction.  The authors present
     fabrication methods of two types of microwell array chips with different
     isolation strategies for carrying out parallel oligonucleotide
     DNA (oDNA) synthesis in the liquid phase: electroplated microwell array
     chips with an isolation wall and a mech. sealing, and etched patterned
     microwell array chips with surface tension isolation.  Both surface and
     bulk micromachining technologies were used for fabrication of those chips.
     The author also discuss various problems regarding fabrication and use.
     The validated fidelity from the single mismatch detection of
     oligonucleotide DNA microwell array chips is also given to prove
     successful isolation of the liquid during a photolytic reaction.
AN   2004:730188  HCAPLUS <<LOGINID::20080919>>
DN   143:68221
TI   Design and fabrication of microwell array chips for a solution-based,
```

photogenerated acid-catalyzed parallel oligonucleotide DNA synthesis

AU Srivannavit, Onnop; Gulari, Mayurachat; Gulari, Erdogan; LeProust, Eric; Pellois, Jean Philippe; Gao, Xiaolian; Zhou, Xiaochuan

CS Department of Chemical Engineering, University of Michigan, Ann Arbor, MI, 48109, USA

SO Sensors and Actuators, A: Physical (2004), A116(1), 150-160
CODEN: SAAPEB; ISSN: 0924-4247

PB Elsevier B.V.

DT Journal

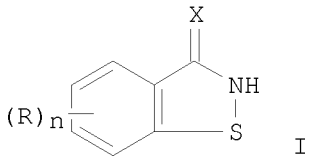
LA English

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Process for the solid phase preparation of oligodeoxyribonucleotides using heterocycle activators

GI



I

AB A process for the synthesis of an oligonucleotide is provided in which an oligonucleotide is assembled on a swellable solid support using the phosphoramidite approach in the presence of an activator I, wherein n is 0-4; R for each occurrence is a substituent, or two adjacent R groups taken together with the carbon atoms to which they are attached form a six membered saturated or unsatd. ring; and X is O or S; the activator is not tetrazole or a substituted tetrazole. Preferred activators are pyridinium, imidazolinium and benzimidazolinium salts; benzotriazole and derivs. thereof; and saccharin or a saccharin derivative Preferred swellable solid supports comprise functionalized polystyrene, partially hydrolyzed polyvinyl-acetate or poly(acrylamide).

AN 2004:534221 HCAPLUS <<LOGINID::20080919>>

DN 141:54582

TI Process for the solid phase preparation of oligodeoxyribonucleotides using heterocycle activators

IN Mccormac, Paul

PA Avecia Limited, UK

SO PCT Int. Appl., 23 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 4

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004055036	A1	20040701	WO 2003-GB5464	20031216

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WO 2003091267 A1 20031106 WO 2003-GB1795 20030425

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CA 2510477 A1 20040701 CA 2003-2510477 20031216

AU 2003292423 A1 20040709 AU 2003-292423 20031216

EP 1575975 A1 20050921 EP 2003-768001 20031216

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

CN 1747963 A 20060315 CN 2003-80109693 20031216

CN 100384864 C 20080430

JP 2006512411 T 20060413 JP 2005-502460 20031216

US 20060149052 A1 20060706 US 2006-539625 20060103

PRAI GB 2002-29443 A 20021218

WO 2003-GB1795 A 20030425

GB 2002-9539 A 20020426

WO 2003-GB5464 W 20031216

OS CASREACT 141:54582; MARPAT 141:54582

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN

TI Displacement chromatography of anti-sense oligonucleotide and proteins using saccharin as a non-toxic displacer

AB In performing displacement chromatog. for the purification of biomols., one of the biggest challenges has been the selection of the proper high affinity displacer. The displacer not only has to have sufficient dynamic affinity to carry out the displacement but must also have suitable operational properties which will enable a cost effective and simple process. One of these requirements is the non-toxic nature of the displacer, which if satisfied will make displacement chromatog. a more attractive tool for biopharmaceutical applications. In this study, a new non-toxic low mol. weight displacer, saccharin, was introduced and characterized for the purification of an oligonucleotide and proteins by anion exchange displacement chromatog. It was demonstrated that saccharin, with only one charge, can indeed displace and purify very highly retained oligonucleotides and proteins. The operating conditions for the displacement expts. were predicted using operating regime plots. The results indicate that saccharin is not only effective as a displacer for isotachic displacements but for selective displacements as well.

AN 2003:137239 HCAPLUS <<LOGINID::20080919>>

DN 139:176045

TI Displacement chromatography of anti-sense oligonucleotide and proteins using saccharin as a non-toxic displacer

AU Tugcu, Nihal; Deshmukh, Ranjit R.; Sanghvi, Yogesh S.; Cramer, Steven M.

CS Department of Chemical Engineering, Rensselaer Polytechnic Institute, Troy, NY, 12180, USA

SO Reactive & Functional Polymers (2003), 54(1-3), 37-47
CODEN: RFPOF6; ISSN: 1381-5148

PB Elsevier Science B.V.
DT Journal
LA English
RE.CNT 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT